

THE JOURNAL OF MEDICAL EDUCATION

OFFICIAL PUBLICATION OF
THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES



MARCH 1955 • VOLUME 30 • NUMBER 3

**A Course Preparing Medical Students
for the Practice of Medicine.....Gertrud Weiss**

**How Effective Is the Matching Plan for
Internship Appointments?.....Joseph M. Pisanl, Schuyler G. Kohl**

**Professional Education as a University Function—
As Viewed by a University Chancellor.....Henry T. Heald
As Viewed by a Law School Dean.....Shelden D. Elliott**

EDITORIALS

Wanted—A New Look at Medical Manpower Problems

Are We Making the Most of Our Intellectual Resources?

The Dean of the School

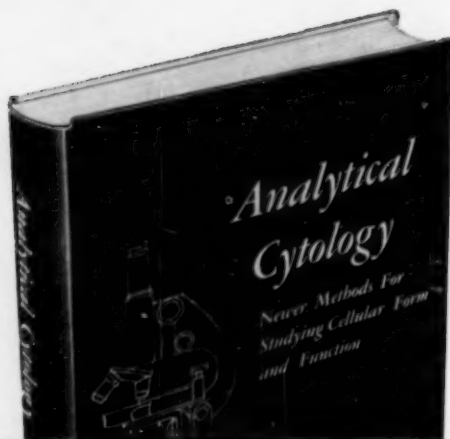
Complete contents on page II

New (11th) Edition!

Greenhill—Obstetrics

See SAUNDERS ADVERTISEMENT—just inside

**Just
Published—
Ready for
Prompt
Delivery**



**Provides in
one volume
an incomparable
collection of
information
not found
in any
other work**

MELLORS' Analytical Cytology

Edited by ROBERT C. MELLORS, M.D., Ph.D.
Sloan-Kettering Institute for Cancer Research;
Memorial Center for Cancer and Allied Dis-
eases; and Cornell University Medical College.

This NEW book, written by a group of eleven scientists, each authoritative in his particular sphere of discussion, brings together in *one volume* some of the newer physical and chemical methods for studying cellular form and function. Particular attention is given to the more recent developments and applications of the microscope. Thus, the light, phase, interference, polarizing, ultraviolet, and fluorescence microscopes are discussed in terms of theory and application to biological problems. Aside from the use of light in cytological analysis, methods which utilize other forms or carriers of radiant energy are reviewed, such as electron microscopy, radioautography, historadiography, and X-ray diffraction techniques. 512 Pages; 140 Illustrations; 6 x 9..... **\$15.00**

WHITE'S Principles of Biochemistry By ABRAHAM WHITE, Ph.D.;
PHILIP HANDLER, Ph.D.; EMIL L. SMITH, Ph.D.; DeWITT STETTEN, Jr., M.D., Ph.D. A critical
exposition of the fundamental principles of biochemistry, placing emphasis upon the application of the
science to medical practice. 1117 Pages; 6 x 9; 143 Illustrations..... **\$15.00**

Greep's HISTOLOGY—Edited by ROY O. GREEP, Ph. D.
“... A text well worth reading and owning by both beginning and advanced students of histology.”—
U.S. Armed Forces Medical Journal. 690 Pages; 6½ x 9½; 640 Illustrations..... **\$15.00**



BLAKISTON DIVISION, MCGRAW-HILL BOOK COMPANY, INC.

330 WEST 42nd STREET, NEW YORK 36, NEW YORK

Please send me:

_____ copies ANALYTICAL CYTOLOGY, Mellors..... \$15.00
_____ copies PRINCIPLES OF BIOCHEMISTRY, White..... \$15.00
_____ copies HISTOLOGY, Greep..... \$15.00

☐ For 30-day Professor Examination*
☐ For 10-day Personal Use Examination*
☐ Check Enc. ☐ M.O. Enc. ☐ Charge
(Postage Prepaid) (Plus Postage)

NAME _____ RANK _____ DEPT. _____
ADDRESS (School, if teaching) _____
CITY _____ ZONE _____ STATE _____

*Examination Privileges Available ONLY in Continental U.S.A.

JME 3/55

New from Saunders

*New
(11th)
Edition!*

Greenhill—Obstetrics

A truly graphic description of the clinical course and conduct of labor—thoroughly revised for this *New (11th) Edition* with new chapters on: Roentgenology in Obstetrics; Analgesia and Anesthesia; Induction of Labor; etc.

By J. P. GREENHILL, M.D., Senior Attending Obstetrician and Gynecologist, The Michael Reese Hospital. About 1138 pages, 7" x 10", with 1140 illustrations on 910 figures, 194 in color. *New (11th) Edition—Ready in April, 1955.*

*New
(9th)
Edition!*

Cecil and Loeb—Medicine

A standard textbook of medicine in 80% of all American medical schools—now in a completely up-to-date *New (9th) Edition*. New discussions are included on: Leptospirosis Diseases; Pyridoxine; Portal Hypertension; Dehydration; Senile Heart Disease; etc.

By 169 American Authorities. Edited by RUSSELL L. CECIL, M.D., Professor of Clinical Medicine Emeritus, Cornell University; and ROBERT F. LOEB, M.D., Bard Professor of Medicine, Columbia University. About 1738 pages, 7" x 10", with 201 illustrations, 18 in color. *New (9th) Edition—Ready in May, 1955.*

New!

Masserman—Practice of Dynamic Psychiatry

From a world-recognized leader in the field—a scientific rationale of basic psychiatry; explicit directions for interviewing and diagnosis; and a practical introduction to effective therapy.

By JULES MASSEMAN, M.D., Professor of Neurology and Psychiatry, Northwestern University School of Medicine. About 850 pages, 6" x 9". *New—Ready in June, 1955.*

*New
(17th)
Edition!*

Fulton—Physiology

Completely up-to-date and thorough in coverage, this classic text is used by more students than any other work on the subject. Based on the actual observations of its contributors.

Edited by JOHN F. FULTON, M.D., Sterling Professor of the History of Medicine, Yale University School of Medicine; with the Collaboration of 30 Authorities. About 1300 pages, 6½" x 9½", with about 550 illustrations.

New (17th) Edition—Just Ready.

W. B. SAUNDERS COMPANY

West Washington Square

Philadelphia 5

Table of Contents

VOL. 30

March 1955

No. 3

ARTICLES

- A Course Preparing Medical Students
for the Practice of Medicine
—Gertrud Weiss 137

- How Effective Is the Matching Plan
for Internship Appointments?
—Joseph M. Pisani, Schuyler G. Kohl 148

- Professional Education as a University Function
As Viewed by a University Chancellor
—Henry T. Heald 155

- As Viewed by a Law School Dean
—Shelden D. Elliott 000

EDITORIALS AND COMMENTS

- Wanted—A New Look at Medical
Manpower Problems 167

- Are We Making the Most of Our
Intellectual Resources? 168

- The Dean of the School 169

- NEWS DIGEST 171

- College Briefs 176

- AUDIOVISUAL NEWS 180

- BOOK REVIEWS 187

- ABSTRACTS AND EXCERPTS 188

- THE PERSONNEL EXCHANGE 193

- Association Officers, Staff, Committees IV

- Calendar of Meetings VIII

- Advertisers Index VIII

II

The Journal of MEDICAL EDUCATION



Official publication of the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1.

The Journal of MEDICAL EDUCATION is owned and published monthly by the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1; Phone, STate 2-8870. Entered as second class matter January 17, 1930, at the Post Office, Chicago, Ill., under the Act of March 3, 1879.

EDITORIAL BOARD: John Z. Bowers, chairman, Utah; William B. Bean, Iowa; Stanley E. Bradley, Columbia; Alan Chesney, Johns Hopkins; James W. Faulkner, Boston; Russell L. Holman, Louisiana State; Chauncey D. Leake, Texas; Dean F. Smiley, secretary.

STAFF: Editor, Dean F. Smiley; Assistant Editor, Tess Snyder; Editorial Assistant, Barbara Madden.

EDITORIAL POLICY: Articles ordinarily will be limited to 5,000 words in length. Articles longer than this usually will require treatment as a supplement and necessitate a publication subsidy. Responsibility for signed articles and editorials is not assumed by the Association's officers or the Journal's Editorial Board but by the individual author.

SUBSCRIPTION RATES: \$7 per year; \$1 per single copy; foreign \$8 per year; \$1.25 per single copy. Change of Address: Notifications of changes of address should include the old address wrapper and the new address.

COPY DEADLINE: Copy for typesetting must be in by the 1st and plates by the 10th of the month preceding publication.

ADVERTISING: Advertising Manager, Roy G. Farry, Journal of Medical Education, 185 N. Wabash Ave., Chicago 1, Ill.; STate 2-8870.

REPRINTS: Each author routinely receives 25 copies of his article promptly after publication. Additional reprints may be purchased from the Journal in quantities of 100, and in multiples of hundreds at a price depending on the length of the article.

Copyright: March 1955, by the Association of American Medical Colleges.

Printed in U.S.A.

Journal of MEDICAL EDUCATION

THE PRODUCT OF A GREAT DIAGNOSTIC CLINIC

Clinical Diagnosis

REGIONAL,

SYSTEMIC and

THE BODY AS A WHOLE

By

ELMER G. WAKEFIELD, M.D., F.A.C.P.

Diplomate, American Board of Internal Medicine; Consulting Physician, Section of Medicine, Mayo Clinic; Associate Professor of Medicine, Mayo Foundation for Medical Education and Research, University of Minnesota.

Here, for the first time in many years, is a compact, single-volume, comprehensive text (1611 pages), devoted to applied principles, practical methods, and tested technics for the diagnosis of disease.

Wakefield's CLINICAL DIAGNOSIS has been prepared for the use of clinicians by a well known clinician whose own broad experience has been supplemented by the accumulated records of many thousands of cases diagnosed each year at the Mayo Clinic by its staff of trained diagnosticians.

For ease of reference and practical use the text matter has been divided into three

main sections with the diagnosis of regional diseases covered in 531 pages, the diagnosis of systemic diseases in 660 pages and the diseases which affect the entire body in 354 pages. Each section is practically a complete book in itself but each supplements the others and together they make up an invaluable reference for the general practitioner, the internist, the resident, and the interne.

These methods and technics are those with which the physician can correctly diagnose at least seven of every ten cases which present themselves to him without the necessity of consulting a specialist.

1st EDITION, PUBL. FEB. 1955 • 1611 PAGES • 135 FIGURES • \$22.50 POSTPAID

ORDER
THROUGH
BOOK STORES,
BOOK SELLERS
OR THE PUBLISHER

APPLETON-CENTURY-CROFTS, INC.

35 WEST 32nd STREET, NEW YORK 1, N. Y.

(Publishers of THE NEW CENTURY CYCLOPEDIA OF NAMES)

Association of American Medical Colleges

OFFICERS OF THE ASSOCIATION 1954-1955

Officers and Members of Executive Council

President and Chairman of Council:
 VERNON W. LIPPARD.....Yale
President-Elect: ROBERT A. MOORE.....Pittsburgh
President: JOHN MCK. MITCHELL.....Pennsylvania
Treasurer: JOHN B. YOUMANS.....Vanderbilt
Immediate Past President: STANLEY E. DOWSE.....Cincinnati
Secretary: DEAN F. SMILEY.....AAMC
Director of Studies: JOHN M. STALNAKER.....AAMC
 STOCKTON KIMBALL.....Buffalo
 JOHN Z. BOWERS.....Utah
 GEORGE N. AGAARD.....Washington (Seattle)
 WALTER R. BERRYHILL.....North Carolina
 LOWELL T. COGGESHALL.....Chicago
 THOMAS H. HUNTER.....Virginia

Staff

DEAN F. SMILEY, Secretary; Editor, Medical Education
 JOHN M. STALNAKER, Director of Studies
 J. EDWIN FOSTER, Director, Medical Audio-Visual Institute
 WILLIAM N. HUBBARD JR., Associate Secretary

Committees of the Association 1954-1955

(Chairmen listed first—Affiliation listed in Italics)

AUDIOVISUAL EDUCATION

Walter A. Bloedorn, George Washington
 William J. Darby, Vanderbilt
 Clarence E. de la Chapelle, N.Y.U. Post-Grad.
 William W. Frye, Louisiana
 Theodore R. Van Dellen, Northwestern
 W. Clarke Wescoe, Kansas
 Tom Jones, Illinois Emeritus, Consultant

BORDEN AWARD

William S. Tillett, N.Y.U.
 Joseph Markee, Duke
 Arnold Rich, Johns Hopkins
 Elmer H. Stotz, Rochester
 Ashley Weech, Cincinnati

CONTINUATION EDUCATION

Norman B. Nelson, Iowa
 Robert Boggs, N.Y.U. Post-Grad.
 Robert Howard, Minnesota
 Samuel Proger, Tufts
 Frank Roberts, Tennessee
 Thomas Sternberg, U.C.L.A.
 Grant Taylor, Texas Post Grad.
 Douglas Volian, Consultant, Council on Med. Edu. and Hosp., AMA

EDITORIAL BOARD

John Z. Bowers, Utah
 William B. Bean, Iowa
 Stanley E. Bradley, Columbia
 Alan Chesney, Johns Hopkins

James M. Faulkner, Boston
 Russell L. Holman, Louisiana
 Chauncey D. Leake, Texas
 Dean F. Smiley, Secretary

FINANCING MEDICAL EDUCATION

Joseph C. Hinsey, New York Hosp., Cornell
 Walter A. Bloedorn, George Washington
 Donald G. Anderson, Rochester
 Robert A. Moore, Pittsburgh
 Norman Topping, Pennsylvania
 John B. Youmans, Vanderbilt

INTERNATIONAL RELATIONS IN MEDICAL EDUCATION

Francis Scott Smyth, California (S.F.)
 Coy C. Carpenter, Bowman Gray
 E. Grey Dimond, Kansas
 Maxwell E. Lapham, Tulane
 Richard H. Young, Northwestern
 Elizabeth T. Lam, Consultant, Com. on International Exch. of Persons
 Harold H. Loucks, Consultant, China Medical Board
 Myron Wegman, Consultant, Pan-American Sanitary Bureau

INTERNSHIPS, RESIDENCIES AND GRADUATE MEDICAL EDUCATION

Currier McEwen, N.Y.U.
 Howard Armstrong, Illinois
 D. W. E. Baird, Oregon
 John Deitrick, Jefferson
 Clarence E. de la Chapelle, N.Y.U. Post-Grad.
 E. Hugh Luckey, Cornell
 Richard W. Vilter, Cincinnati
 George A. Wolf Jr., Vermont

LICENSURE PROBLEMS

Charles A. Doan, Ohio State
 Charles L. Brown, Hahnemann
 Gordon E. Goodhart, Southern California
 John Hirschboeck, Marquette
 J. Murray Kinsman, Louisville
 Arthur W. Wright, Albany

MEDICAL CARE PLANS

Dean A. Clark, Harvard
 Frank R. Bradley, Washington (St. Louis)
 R. H. Kampmeier, Vanderbilt
 Henry B. Mulholland, Virginia
 John F. Sheehan, Loyola
 Albert W. Snoke, Yale
 Maxwell M. Wintrobe, Utah

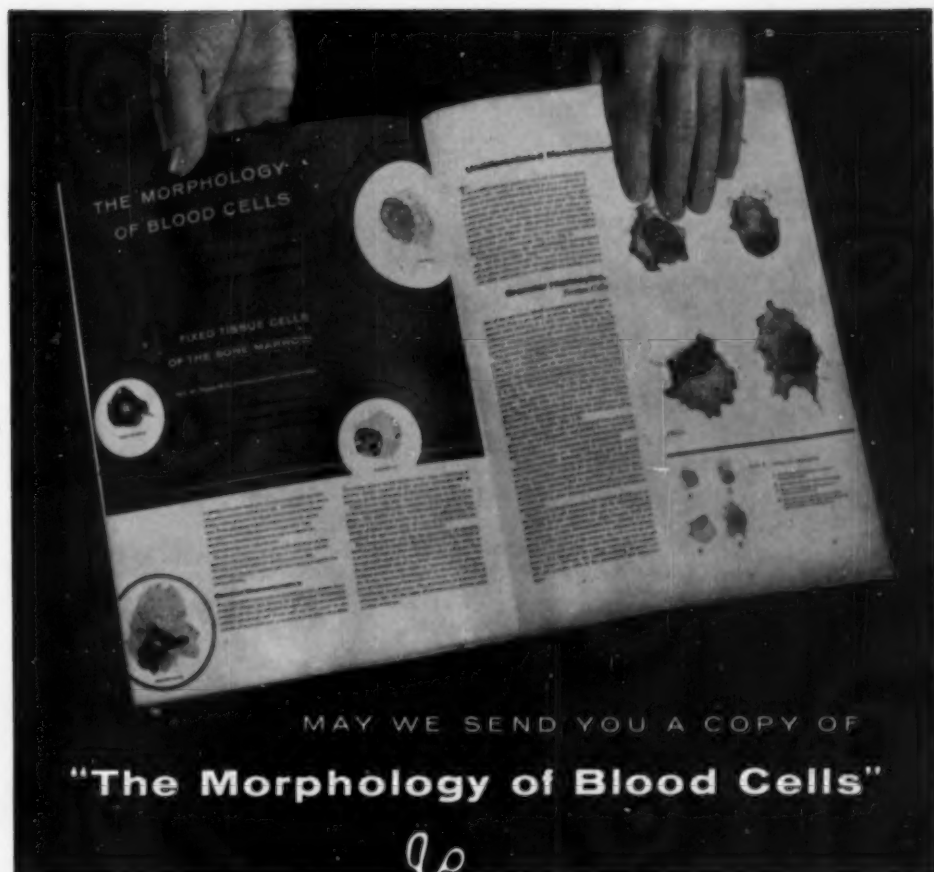
PLANNING FOR NATIONAL EMERGENCY

Stanley W. Olson, Baylor
 Mark R. Everett, Oklahoma
 Thomas B. Forbes, Yale
 Stockton Kimball, Buffalo
 John B. Truslow, Med. Coll. of Virginia

PROGRAM

Vernon W. Lippard, Yale
 Robert A. Moore, Pittsburgh
 John McK. Mitchell, Pennsylvania
 Dean F. Smiley, Secretary

(Committees continued on page VI)



ABBOTT LABORATORIES
NORTH CHICAGO, ILLINOIS

Please send me _____ complimentary copy (copies)
of "The Morphology of Blood Cells."

name _____

address _____

city _____ zone _____ state _____

003004

● This 28-page reference book contains three sections: I. *Normal Cells*; II. *Fixed Tissue Cells of Bone Marrow*; III. *Pathological Blood Cells*. It is handsomely illustrated in full color, with 30 plates showing over 250 blood cells.

The authors are L. W. Diggs, M.D., Dorothy Sturm, and Ann Bell, from the Hematology Laboratory, Univ. Tennessee Medical School and John Gaston Hospital, Memphis, Tenn.

Originally published serially in Abbott's *WHAT'S NEW* magazine, the complete atlas is now offered by Abbott as a service to the medical profession. No advertising appears.

For your copy, send the coupon. (Additional free copies are available on request, for classroom distribution.)

Abbott

(Committees continued from page IV)

PUBLIC INFORMATION

John L. Caughey, *Western Reserve*
Francis M. Forster, *Georgetown*
John D. Van Nuys, *Indiana*
Harold C. Wiggers, *Albany*
Joseph B. Kelly, *Johns Hopkins, Consultant*
Milton Murray, *Medical Evangelists, Consultant*
Ralph Rohweder, *Nat'l. Soc. for Med. Research, Consultant*
Raymond O. Torr, *Nat'l. Fund for Med. Edu., Consultant*
William N. Hubbard Jr., *Secretary*

TEACHING INSTITUTES AND SPECIAL STUDIES

George Packer Berry, *Harvard*
Philip Bard, *Johns Hopkins*
D. Bailey Calvin, *Texas*
Thomas Hunter, *Virginia*
Carlyle Jacobsen, *S.U.N.Y.*
Robert A. Moore, *Pittsburgh*
Robert Murray, *Western Ontario*
Vernon W. Lippard, *Yale*
W. Clarke Wescoe, *Kansas*
William R. Willard, *S.U.N.Y. (Syracuse)*
John M. Stalnaker, *Secretary*

VETERANS ADMINISTRATION— MEDICAL SCHOOL RELATIONSHIPS

Joseph Hayman, *Tufts*
George A. Bennett, *Jefferson*
Robert Berson, *Alabama*
Gordon H. Scott, *Wayne*
Francis R. Manlove, *Colorado*

Representatives to Related Organizations

ADVISORY BOARD FOR MEDICAL SPECIALTIES

Stanley E. Dorst, *Cincinnati*
John B. Youmans, *Vanderbilt*

ADVISORY BOARD OF AMERICAN FOUNDATION OF OCCUPATIONAL HEALTH

Gordon H. Scott, *Wayne*

ADVISORY COUNCIL FOR THE NATIONAL FUND FOR MEDICAL EDUCATION

Walter A. Bloedorn, *George Washington*
Joseph C. Hinsey, *New York Hosp., Cornell*
John B. Youmans, *Vanderbilt*

ADVISORY COUNCIL ON MEDICAL EDUCATION

Vernon W. Lippard, *Yale*
Robert A. Moore, *Pittsburgh*

AMERICAN COUNCIL ON EDUCATION

Hayden C. Nicholson, *Arkansas*
Marion Fay, *Woman's Medical*
William Stone, *Maryland*
Joseph L. Johnson, *Howard*
Edward J. Van Lier, *West Virginia*
John T. Cuttino, *South Carolina*

COMMITTEE ON EVALUATION OF FOREIGN CREDENTIALS

Francis Scott Smyth, *California (S.F.)*
Harold A. Davenport, *Northwestern*

COUNCIL ON NATIONAL EMERGENCY SERVICE

Stanley W. Olson, *Baylor*

FEDERATION OF STATE MEDICAL BOARDS

Charles A. Doan, *Ohio State*

FELLOWSHIPS SELECTION BOARD (WHO)

Walter A. Bloedorn, *George Washington*

NATIONAL INTERN MATCHING PROGRAM, INC.

E. Hugh Luckey, *Cornell*
George A. Wolf Jr., *Vermont*
John M. Stalnaker, *AAMC*

JOINT COMMITTEE ON MEDICAL EDUCATION IN TIME OF NATIONAL EMERGENCY

Stockton Kimball, *Buffalo*
Mark R. Everett, *Oklahoma*
Stanley W. Olson, *Baylor*
Dean F. Smiley, *AAMC*
John M. Stalnaker, *AAMC*

LIAISON COMMITTEE WITH COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Stanley E. Dorst, *Cincinnati*
Vernon W. Lippard, *Yale*
Robert A. Moore, *Pittsburgh*
Dean F. Smiley, *AAMC*
John M. Stalnaker, *AAMC*

MEDICAL ADVISORY COMMITTEE ON INSTITUTE OF INTERNATIONAL EDUCATION

Duncan W. Clark, *S.U.N.Y. (Brooklyn)*
Lawrence Hanlon, *Cornell*
Ralph E. Snyder, *N.Y. Med. Col.*

NATIONAL BOARD OF MEDICAL EXAMINERS

John Deitrick, *Jefferson*
Robert A. Moore, *Pittsburgh*
B. O. Raulston, *Southern California, Emeritus*

NATIONAL HEALTH COUNCIL

Jean A. Curran, *S.U.N.Y. (Brooklyn)*
Aura Severinghaus, *Columbia*
Ira Hiseock, *Yale*

SUBCOMMITTEE ON MEDICAL EDUCATION FOR NATIONAL DEFENSE

Stanley W. Olson, *Baylor*
George V. Byfield, *Illinois*
Lawrence Hanlon, *Cornell*
Stockton Kimball, *Buffalo*
John Lagen, *California (S.F.)*
John B. Youmans, *Vanderbilt*

COOPERATING COMMITTEE ON GRADUATES OF FOREIGN MEDICAL SCHOOLS

Charles A. Doan, *Ohio State*
John McK. Mitchell, *Pennsylvania*
J. Murray Kinsman, *Louisville*

MEMBER OF INTERNSHIP REVIEW BOARD OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

John Deitrick, *Jefferson*

"Substantial
Progress"*

**IN
EXCRETORY
UROGRAPHY**

- **RADIOPACITY...** *High*
- **EXCRETION...** *Rapid*
- **TOXICITY...** *Low*
- **VEIN CRAMP...** *Rare*
(in approximately 1% of cases)



NEW

Hypaque[®] SODIUM

50% sterile aqueous solution

"In addition to the excellent quality of excretory urograms obtained with Hypaque the virtual absence of major side effects and the small percentage of minor side effects were notable."*

*Moore, T. D.; and Mayer, R. F.: Hypaque: An Improved Medium for Excretory Urography. A Preliminary Report of 210 Cases. Paper read at 48th Annual Meeting of Southern Medical Assn., St. Louis, Mo., Nov. 10, 1954.

Hypaque, trademark reg. U.S. Pat. Off., brand of diatrizoate sodium.



Winthrop-Stearns INC.
New York 18, N. Y. Windsor, Ont.

SUPPLIED: Ampuls of 30 cc.,
boxes of 1, 10 and 25 (with 1 cc. test ampuls).

Write for detailed literature.

Calendar of Meetings

ASSOCIATION OF AMERICAN MEDICAL COLLEGES 66th Annual Meeting, October 24-26; Swampscott, Mass. (New Ocean House).

Teaching Institute on Anatomy and Anthropology—October 19-22; Swampscott, Mass. (New Ocean House). (Attendance by invitation only).

American College Public Relations Association—June 30, July 1 and 2; Chicago.

American Goiter Association—April 28-30; Skirvin Hotel, Oklahoma City.

American Hospital Association, Annual Convention—September 19-22; Traymore Hotel, Atlantic City.

American Medical Association, Annual Meeting—June 6-10; Atlantic City, N. J.

American Pharmaceutical Association, Annual Convention—May 1-7; Miami Beach, Fla.

American Psychosomatic Society—May 4 and 5; Claridge Hotel, Atlantic City, N. J.

American Tuberculosis Society—May 23-27; Milwaukee.

British Medical Association, Representative Meeting—June 1-4; London, England.

Catholic Hospital Association—May 16-19; Kiel Auditorium, St. Louis.

Congress of the International Diabetes Federation—July 4-8; Cambridge, England.

Congress of the International Society of Urologists—April; Athens, Greece.

European Congress on Rheumatism—June 13-17; Scheveningen, The Hague, Netherlands.

International Anatomical Congress—July 25-30; Paris, France.

International Congress of Biochemistry—August 1-6; Brussels, Belgium.

International Congress of Comparative Pathology—May 26-31; Lausanne, Switzerland.

International Congress of Plastic Surgery—August 1-4; Stockholm, Sweden.

International Congress of Urology—April 10-18; Athens, Greece.

International Surgical Congress—May 23-26; Geneva, Switzerland.

Inter-American Congress of Radiology—April 24-29; Shoreham Hotel, Washington, D. C.

Japan Medical Congress—April 1-5; Kyoto, Japan.

Middle East Medical Assembly—April 22-24; American University of Beirut, Lebanon.

National Health Council, National Health Forum and 35th Annual Meeting—March 23-25, Hotel Sheraton Astor, New York, N. Y.

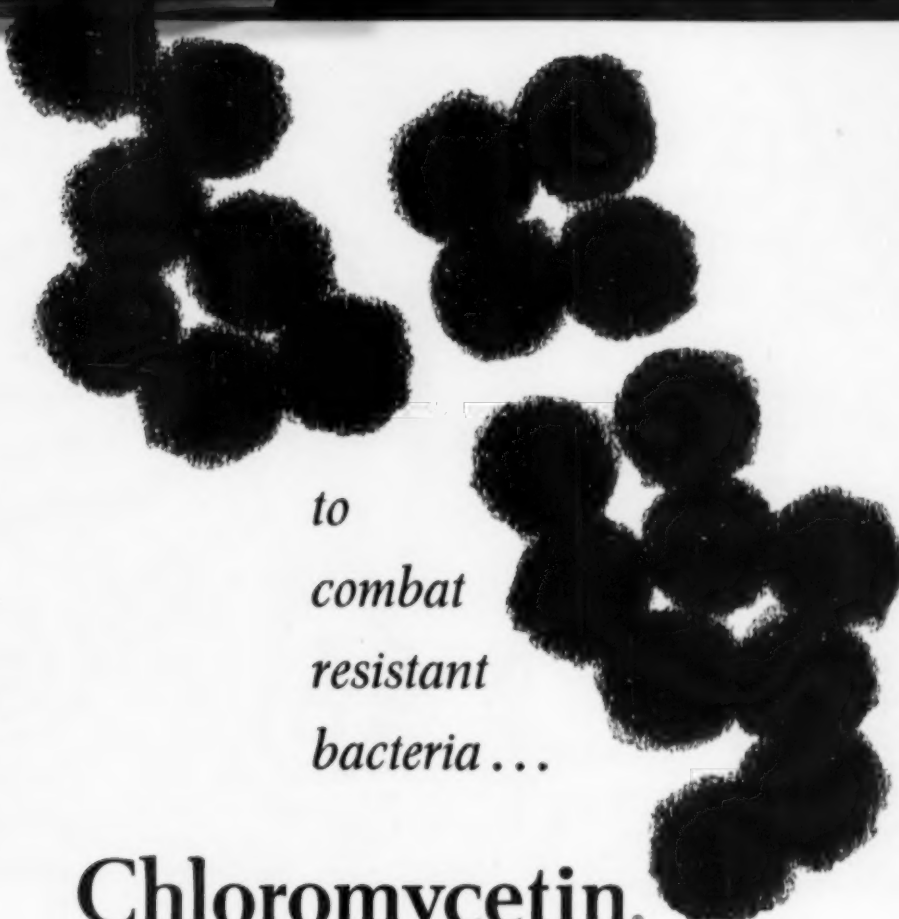
National Tuberculosis Association, 51st Annual Meeting—May 23-27, Milwaukee, Wis.

World Medical Association—September 20-26; Vienna, Austria.

Index to Advertisers

Abbott Laboratories.....	V
American Cancer Society.....	Inside Back Cover
American Public Health Assn.....	192
Appleton-Century-Crafts, Inc.....	III
Bausch & Lomb Optical Co.....	182
Borcherdt Malt Extract Co.....	195
Harper Bros.....	189
Lea & Febiger.....	190
Lippincott, J. B. and Co.....	Back Cover

Macmillan Co.....	XII
McGraw-Hill Book Co., Inc., Blakiston Div.....	Inside Front Cover
Parke, Davis & Co.....	IX
W. B. Saunders Co.....	Front Cover, I
Smith Kline & French Laboratories.....	184
Taylor Instrument Co.....	X
Warner-Chilcott Laboratories.....	XI
Winthrop-Stearns, Inc.....	VII
Woodward Medical Personnel Bureau.....	193



*to
combat
resistant
bacteria...*

Chloromycetin.



The rising incidence of bacterial resistance to various antibiotics constitutes a serious therapeutic problem. Many infections, once readily controlled, are now proving difficult to combat. Administration of **CHLOROMYCETIN** (chloramphenicol, Parke-Davis) is often useful in these cases because this notable, broad-spectrum antibiotic is frequently effective where other antibiotics fail.

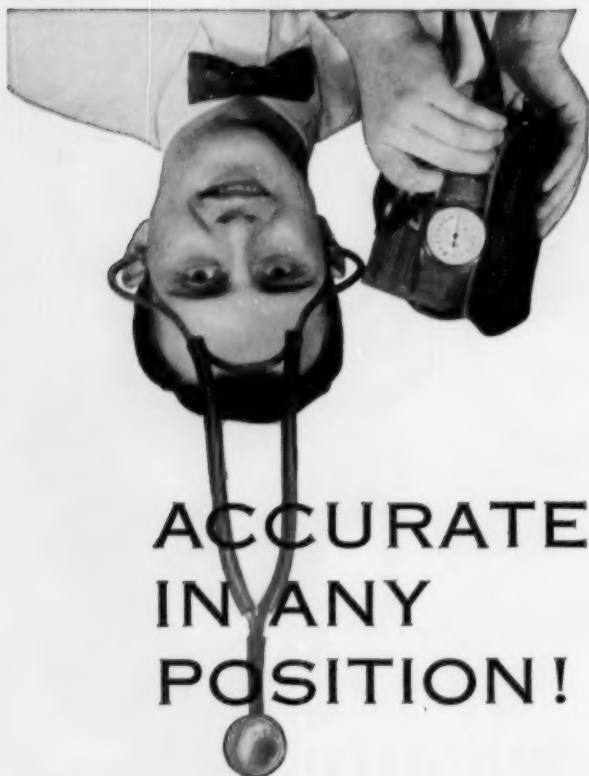
"...An advantage of **CHLOROMYCETIN** appears to be its relatively low tendency to induce sensitization in the host or resistance among potential pathogens under clinical conditions."*

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

*Pratt, R., & Dufrenoy, J.: Texas Rep. Biol. & Med. 12:145, 1954.



PARKE, DAVIS & COMPANY • DETROIT 32, MICHIGAN



ACCURATE IN ANY POSITION!

DOCTORS everywhere depend on the accuracy of Tycos* blood pressure instruments. The Pocket Aneroid gives that accuracy in any position . . . and it will stay that way unless misused. You know it's accurate as long as the pointer returns to zero . . . an easy visual check. Weighing only 19 ounces, this Aneroid is the *ideal*

bedside instrument. It fits in a zipper case that can easily be slipped in your pocket or bag. Exclusive hook cuff fits any adult arm—on and off in a jiffy. See this instrument at your favorite surgical supply dealer. Price **\$42.50**. Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

Taylor Instruments
MEAN ACCURACY FIRST

In parkinsonism . . .



. . . a need to save face

Disheartened and debilitated — the parkinsonian patient is often unable to perform the simple functions of everyday life. To control his body, to handle a spoon, a razor, a glass; to live with dignity and strength — these are the goals he pathetically seeks.

A new drug, Parsidol, has successfully demonstrated its ability to modify or abolish the symptoms of Parkinson's disease.^{1,2,3} Tremor, spasm, akinesia, oculogyric crises and festination have all been controlled in a significant number of cases.

Administered orally, either alone or with adjunctive therapy, such as atropine, scopolamine or stramonium.

PARSIDOL®

HYDROCHLORIDE

(Brand of Ethopropazine hydrochloride)

Available in

10 mg., 50 mg. and 100 mg. tablets, bottles of 100 and 500. Trial supplies and complete information on Parsidol will be sent promptly upon request.

Warner-Chilcott Laboratories
113 W. 18th St.,
New York 11, N. Y.

1. Gallager, D. J. A., and Palmer, H.: New Zealand M. J. 49:531 (Oct.) 1950. 2. Sigwald, J.: Presse méd. 59:819 (Sept. 17) 1949. 3. Timberlake, W. H., and Schwab, R. S.: New England J. Med. 247:98 (July 17) 1952.

WARNER-CHILCOTT

R_x *keeping the student
posted in pharmaco-therapy*

- 1... take one volume of Goodman-Gilman
- 2... add a comprehensive guide to antibiotic therapy
- 3... and include a primer on toxicology

GOODMAN-GILMAN

THE PHARMACOLOGICAL BASIS OF THERAPEUTICS

New Second Edition • 1850 pages • Illus. • Only \$17.50

A complete revision of one of the most widely used textbooks in any field of medicine. Its scope is

- the correlation of pharmacology with related medical sciences.
- reinterpretation of the actions and uses of drugs from the standpoint of important advances in medicine.
- the placing of emphasis on the applications of pharmacodynamics to therapeutics.
- a "way of thinking about drugs" so that the student will be better prepared to withstand the flood of unsubstantiated claims often made for new drugs, and to evaluate critically the published literature on the properties and uses of new therapeutics in comparison with older compounds of the same class.

HUSSAR-HOLLEY

ANTIBIOTICS AND ANTIBIOTIC THERAPY: A Clinical Manual

Sorely needed for a long time by students is this comprehensive text on antibiotics and their use in therapy. Beautifully organized, it includes an excellent discussion of *fundamentals* of antibiotic therapy. Effective antibiotics against the various organisms and diseases, with the "drug of choice" in prophylaxis, are given for every field of medicine. Outstanding is the skillful digest of pertinent references after each topic.

\$6.00

G. H. W. LUCAS

THE SYMPTOMS & TREATMENT OF ACUTE POISONING

The field of toxicology is covered from the clinical viewpoint. In a convenient, pocket-size book, the student will be able to determine quickly the source and necessary treatment in acute poisoning cases. Descriptions, fatal doses, toxic symptoms, recommended emetics and specific treatments are outlined for 130 toxic agents.

\$4.00

At your bookstore or write *The Macmillan Company*

60 FIFTH AVENUE, NEW YORK 11, N.Y.

A Course Preparing Medical Students for the Practice of Medicine

GERTRUD WEISS

AT THE 50th Annual Congress on Medical Education and Licensure, held in Chicago in February 1954, a panel discussion on the subject of professional orientation was held. "The panel was asked: Is there a need for greater emphasis on such subjects as medical ethics, medical economics, how to set up a practice and medico-legal problems? Whose responsibility is it to meet this need?"

"Panel members were in general agreement that there is definite need for medical students to receive more information on such practical aspects of their careers as fees, costs of practice and relationships with patients. Too often the young student comes out into practice insecure and uninformed on the problems he will face with his patients, with other doctors, etc. He assumes a defensive and isolated attitude, and in the words of one panel member, 'fits very uncomfortably into the community.'

"Courses by men in general practice, or information supplied by health organizations, might meet this need without placing an additional burden on the faculties of medical schools, although the final responsibility for getting this practical and helpful material to students would rest with the schools. The panel suggested that perhaps seminars or guest lectures by general practitioners, law

school faculty members, etc., would assist the regular faculty in orienting the students toward their careers."

This discussion seems to indicate that there is agreement on the desirability of a course orienting medical students to problems they will face when they go into practice.

It might, therefore, be of interest to describe our experience during the past few years in developing a course, just as suggested by the panel. The course, which is now called "The Practice of Medicine," consists of about 20 sessions, one hour a week, and is given during the junior year. It was originally developed by James P. Dixon, when he was health officer of Denver and affiliated with the department of preventive medicine of the medical school. In the beginning, the course consisted of a series of lectures, many of them given by guest lecturers, on problems of medical practice, medical economics and medical care.

Although many of these lectures were given by outstanding men and much enjoyed by the rest of the staff, the students did not seem to respond, and it was felt that the lectures seemed too theoretical and did not tie in with the students' interests and experiences.

In order to stimulate student par-

Dr. Weiss is associate professor and acting head, department of preventive medicine and public health, University of Colorado School of Medicine.

*Congress of Medical Education, *News Digest. Jour. of Med. Educ.*, March 1954, Vol. 29, No. 3. pp. 48-49.

Preparing Medical Students for the Practice of Medicine

COURSE "THE PRACTICE OF MEDICINE" 1954			
SESSION	TOPIC	SPEAKER	
1. (Dec. 9)	The Internship	Dr. Eisele	Lecture
2. (Dec. 16)	Philosophy of Licensure	Mr. Harrington	Lecture
3. (Jan. 6)	Medical Education	Dr. Darley	Lecture
4. (Jan. 13)	Specialty Training	Dr. Smyth	Lecture
5. (Jan. 20)	Starting a Practice	Dr. Ley	Lecture
6. (Jan. 27)	General Practice as a Specialty	Dr. Thode	Lecture
7. (Feb. 3)	Specialty or General Practice	Dr. Amesse Dr. Gardner Dr. W. Liggett Dr. Longwell	Panel
8. (Feb. 10)	Group Practice	Dr. Porter	Lecture
9. (Feb. 17)	Group Practice	Dr. Lewis	Lecture
10. (Feb. 24)	Professional Relations	Dr. Phelps	Case A
11. (Mar. 3)	Other Healing Arts	Dr. Florio	Case B
12. (Mar. 17)	Hospitals	Mr. Hughes	Lecture
13. (Mar. 24)	Relations with other Professions	Dr. Holmes Dean Roberts	Case C
14. (Mar. 31)	Spanish Americans	Mr. Saunders	Case D
15. (Apr. 7)	Religious Views	Dr. McGlone Father Regan Dr. Foley	Case E
16. (Apr. 14)	Grievances	Dr. W. Liggett	Case F
17. (Apr. 21)	Folk Medicine	Mr. Saunders	Case G
18. (Apr. 28)	Medical Insurance	Dr. Good	Case H
19. (May 5)	Business Practices	Dr. Good	Case J
20. (May 12)	The National Health Service of Great Britain	Dr. Florio	Lecture

ticipation, during a following year the course was modified so that each lecture was followed by two or three seminars. For the seminars, the class was divided into four groups with 20 students in each, each group being led by a staff member of the department of preventive medicine, who invited resource persons from the community particularly qualified to discuss the special topics. During these seminar sessions, the students could talk freely. The majority expressed a need and desire for personal counseling, and revealed considerable anxiety as to their own future plans, especially regarding postgraduate training. The problem of specializa-

tion versus general practice seemed an overwhelming one.

Although we felt that the course should not be given over entirely to counseling and that subjects of general interest, though perhaps still remote to junior students, should be retained, consideration was given to their needs. Therefore, subjects such as a discussion of the internship and of specialty training were introduced.

In order to make general problems more tangible, H. J. Dodge, who took over the responsibility for this course after Dr. Dixon left Denver in 1952, started the case history method and drew up realistic "cases" to illustrate particular problems.

These "cases" were given to the students one week in advance of the session at which they were discussed, and the guest speaker or resource person, invited to discuss this problem, usually started out by asking the students how they would solve the problem proposed by the "case."

In 1952 also, Lyle Saunders, a sociologist, joined the department of preventive medicine and became an active participant in this course. He too used the case history method for introducing topics of sociology. For the past two years, this course has been given as a combination of lectures and panels and case discussions.

"The Practice of Medicine" is part of a major interdepartmental course,

"Survey of Human Disease," and represents the contribution of the department of preventive medicine and public health. One member of the department of preventive medicine and public health is responsible for scheduling and coordinating the course, for the introduction of the guest lecturers and for moderating the discussion. We have found that in a course such as this, where many different persons participate, it is important for one person to be present at all sessions, to provide for continuity. In order to give each staff member a chance to contribute, the responsibility for organizing the course is rotated among the staff members from year to year. All staff members

COURSE "THE PRACTICE OF MEDICINE" 1954

List of Speakers

CHARLES WESLEY EISELE, M.D.; assistant director, graduate and postgraduate education, Denver
 MARK H. HARRINGTON, J.D.; chairman, board of health and hospitals, Denver
 WARD DARLEY, M.D.; president, University of Colorado, Boulder
 CHARLEY J. SMYTH, M.D.; director, graduate and postgraduate education, Denver
 ALBERT P. LEY, M.D.; general practitioner, Monte Vista
 HENRY P. THODE JR., M.D.; general practitioner, Fort Collins
 JOHN H. AMESSE, M.D.; general practitioner, Denver
 MARIANA GARDNER, M.D.; pediatrician, Denver
 WILLIAM A. LIGGETT, M.D.; internist; past president, state medical society, Denver
 FREEMAN H. LONGWELL, M.D.; obstetrician and gynecologist, Denver
 ROBERT T. PORTER, M.D., internist, Greeley Clinic Group, Greeley
 J. W. LEWIS, M.D.; radiologist, Colorado Springs Medical Center Group, Colorado Springs

L. MCKINNIE PHELPS, M.D.; anesthetist; past member, board of trustees, state medical society, Denver
 LLOYD J. FLORIO, M.D.; manager, department of health and hospitals, Denver
 HUBERT W. HUGHES; administrator, General Rose Memorial Hospital, Denver
 JOSEPH H. HOLMES, M.D.; professor of medicine, Denver
 REV. PAUL ROBERTS; dean, St. John's Episcopal Cathedral, Denver
 LYLE SAUNDERS, M.D.; sociologist, Denver
 FRANK B. MCGLONE, M.D.; internist, Denver
 REV. JOHN J. REGAN; pastor, Mother of God Catholic Church, Denver
 THOMAS H. FOLEY, M.D.; obstetrician and gynecologist, Denver
 FREDERICK H. GOOD, M.D.; surgeon; president, Colorado Medical Services, Inc. (Blue Shield Plan)
 Coordinator: GERTRUD WEISS, M.D.; acting head, department of preventive medicine and public health, Denver

Preparing Medical Students for the Practice of Medicine

of the department of preventive medicine and public health and several practicing physicians meet at the beginning and end of the term to plan and evaluate the program.

In the introduction, the students are told that we are trying to anticipate some of the situations doctors commonly face when they go into practice other than the technical problems of diagnosis and treatment; that we shall not try to provide standard answers, but will rather point up problems that exist and show the students several of the different ways in which they may be handled. The students are also encouraged to participate by asking questions, and the speakers are asked to reserve about one-third of the hour for discussion.

The first few sessions deal with questions that junior students are already concerned about: where should they intern and what kind of internship should they select; should they plan to take a residency after the internship and what kind of post-graduate experience will prepare them best for the kind of practice they are aiming at; what about licensing; what kind of preparation do they need for going into general practice, and what is required for specialization?

As we have learned that our students are considerably preoccupied with the decision between general or specialty practice, this problem is selected as the topic for a panel discussion in which a general practitioner, a pediatrician, an obstetrician and an internist participate, describing the limitations and debating the advantages and disadvantages of their types of practice. At two other sessions, general practitioners from small communities in the state are invited to present their particular types of practice and the problems

they are facing. These sessions are particularly popular with the students who hear about very practical problems such as: how does one start practice; how does one select a location; how does one get one's first patients, and how does one set the fees. It is interesting that on this occasion, during the second half of the junior year, our students, for the first time in medical school, are officially introduced to and taught by general practitioners. Yet, a poll taken at the end of last year showed that 48 per cent of the junior class desired to go into general practice.

Group practice, including its administrative and business aspects, is discussed by physicians representing two different group clinics in the state.

We then proceed to take up some problems which arise after one is established in practice: the physician's relationship to his patients, to his colleagues, to organized medicine and his position in the community. Some of these subjects are discussed by physicians occupying prominent positions in the medical society. While a good deal of time is given to problems of medical ethics and grievances, discussions of medico-legal problems are omitted because they are presented by a lawyer in another part of the survey course.

The business end of medical practice, including medical insurance, is discussed by the president of the Colorado Blue Shield Plan, and the relationship of the practicing physician to hospitals by the administrator of one of the voluntary hospitals of this community.

Folk medicine and the question of how to deal with patients who belong to a minority group in the population, which in this community is represented by the Spanish-Americans, is discussed by the sociologist.

In another session "healing arts," other than medicine, are described by a member of the department of preventive medicine. Some sessions are devoted to problems which may arise in relation to a patient's religious beliefs. On one occasion, the problems of Catholic patients are discussed by two Catholic physicians and a priest. In another session, an Episcopalian minister and an internist explore how the physician and the minister can work together to help a patient; a case of terminal illness from cancer is used as an illustration. The last session in 1954 was given to a description of the National Health Service of Great Britain by a staff member who related his personal impressions that he gained during a visit which he made to England.

The students are referred to two textbooks for further information: Stanley R. Truman, "The Doctor: His Career, His Business, His Human Relations" (Williams and Wilkins, 1951) and Martin G. Vorhaus, "A Guide to General Medical Practice" (MacMillan Co., 1950), as well as to appropriate articles in the literature. Pamphlets prepared by the state medical society, Blue Shield and the AMA are also distributed to the students.

In 1954, 20 resource persons from the community participated in teaching this course in addition to several staff members of the department of preventive medicine. We believe that the readiness, in many instances enthusiasm of this volunteer group, to assist in teaching this program indicates that the need for such an or-

ientation is recognized by the community.

The program has been conducted as described above, with minor modifications, for the past three years in succession. There undoubtedly will be further modifications in the future. However, we plan to continue the basic pattern using a variety of resource persons and the case history method.

Courses of this type are difficult to evaluate, and the impact on the student, in the final analysis, may not become apparent until several years have elapsed. In the meantime, we are guided by the students' responses, which have varied from year to year and from session to session, and by our own impressions.

The author felt quite reassured by inquiries regarding practical problems received from several graduates who had taken the course and were thinking about going into practice. It is also of interest to us that groups of students, on their own initiative, invited some of the resource persons to meet with them privately to continue discussion of some of the topics in which the students had become vitally interested.

Summary

An orientation program to introduce junior medical students to some aspects of medical practice, other than the strictly technical ones, is described. This program is carried out with the aid of a variety of resource persons from the community. Ample use is made of the case history method.

Following are a representative selection of the type of general problem case studies used as an exercise for students in their course on "The Practice of Medicine." These studies were given to the students a week ahead

of their scheduled presentation. When the class met, students usually were asked to start out with discussion of how they would solve the problem proposed by the particular case study.

Case A—Professional Relations

YOU ARE A NEWLY ESTABLISHED physician in a town of 10,000 population. Late one evening you are called to see Mrs. Roe, a 25-year-old married woman who is having acute abdominal pain. Careful inquiry and examination leads you to believe that she has acute appendicitis and that immediate surgery is indicated. Before making your diagnosis and recommendations known to the family, you ask who is the family physician. They reply that they have no regular physician, but that on this occasion they called Dr. Doe first, and when they could not locate him called you.

You then inform the family of your diagnosis and recommend immediate surgery. The family asks you to take the case.

You accept, arrange for hospitalization, do the surgery and find your diagnosis substantiated. You remove the appendix successfully and the patient makes an uneventful recovery.

About two months after the emergency you receive a phone call from Dr. Doe. He is obviously very angry and asks what you mean by "stealing his patients." After some difficulty you finally learn that he is referring to Mrs. Roe. He informs you that he regards the Roe family as his, medically speaking, and that you had no right to operate on Mrs. Roe. He then suggests that you come to his office and give him a full explanation, or else!

For your own protection you call on Dr. Doe as soon as possible. You explain the situation as it occurred. He refuses to accept your story and repeats that stealing patients is a serious business. He makes it clear that he is thinking of bringing you before the county medical society on the charge of violation of professional ethics, with a view to your expulsion from that organization.

He then goes on to point out that such action might seriously handicap your medical career, if not ruin it. Following this comes a long dissertation in which Dr. Doe hints, but does not say directly, that he considers himself the only qualified surgeon in the community and that he deems it advisable for you to refer all surgical cases to him. He implies that if you are willing to turn over all surgical problems to him he will not make an issue of the Roe case. Further, you are led to infer that in return for your surgical referrals, he will give you a cut of the fees he collects from the patients you refer. He further suggests that having more practice than he can handle, he can throw a lot of work your way if you're a "good fellow."

Dr. Doe then terminates the meeting abruptly without giving you a chance to pin him down by asking questions.

What course of action should you have taken originally to protect yourself? What can you do now?—Prepared by H. J. Dodge.

Case B—Other Healing Arts

A FATHER AND MOTHER of the Christian Science faith took a long weekend

vacation leaving their four-year-old daughter with non-Christian Science friends during their three-day absence.

On the second day of the parents' absence, the child complained of a mild sore throat and had a fever of 100.5°. The infection seemed mild and the friends did nothing except to keep the child as quiet as possible. The next day, however, the child seemed much worse, although the temperature was only 101.5°. They called their physician who, after an examination of the child, felt that the child probably had diphtheria. He took smears and cultures and left immediately to take these specimens to the laboratory where he planned to obtain antitoxin to start treatment at once.

Upon his return to the home one hour later, he found that the parents had just returned from their holiday. They refused all treatment for the child, were very willing to pay the physician's fee, but discharged him immediately. They indicated that while no other physician would be sought, a Christian Science healer would be called instead. They were quite willing to abide by all the rules and regulations of the health department, relative to isolation and quarantine. Shortly the laboratory reported to the physician that the smear was positive for diphtheria and this confirmed by culture within 8 hours.

The physician again contacted the family personally, explained the gravity of the situation and urged that the child should be treated, if not by himself, then by any other physician of the parent's choice. Again the parents politely, but firmly, declined all treatment, indicating they had already turned the case over to their Christian Science practitioner.

The health officer then attempted to persuade the parents to seek treatment, since the physician had contacted him after his failure to convince the family. The parents remained adamant, but indicated every willingness to comply with all the regulations of the health department relative to this disease.

If you were the physician what, if anything, would you do next?—Prepared by L. Florio.

Case C—Relations with Other Professions

YOU ARE THE GENERAL PRACTITIONER to whom a 65-year-old widow has recently come with a palpable abdominal tumor. You have had her admitted to a large general hospital, suspecting a generalized carcinomatosis. Subsequent tests have shown an enlarged liver and evidence of metastasis. Due to the generalized nature of the malignancy, you and consulting physicians consider even an exploratory operation to be inadvisable, as it would entail much expense and be of no benefit to the patient.

The patient's only son comes to you, willing to consider "shielding" his mother as to the eventual fatal outcome of her illness. What should the patient be told? Should she remain in the hospital or return home?

Intravenous feedings will be necessary, along with other supportive measures. The weakened condition of the patient, although still alert mentally, makes expert nursing care essential. Length of duration of the illness (until death) is problematical.

At this point the patient is asking her family why the doctors do not remove this abdominal "lump." Not knowing of her generalized metastasis, and not apparently wanting to know the prognosis, she has become restless and is not happy because the doctors do not seem to be doing anything for her. She wants to go home.

Should she be told that she will not recover? Or should she be treated in the hospital with palliative measures in an atmosphere of encouragement? The son asks you if he is doing the right thing in sanctioning the latter course. He feels that he can arrange for out-of-town close relatives to come as if for just a visit, bringing the new baby the grandmother has never seen. An unmarried daughter shares ownership of the patient's home, so it appears that no legal procedures should be necessary.

Is it justifiable to hide from the patient her incurable condition? If the family decides to keep a "bright and cheerful" front, what will they do if she becomes apprehensive and asks about her true condition?

Should she be given the opportunity to "prepare" for death? She has been a lifelong faithful member of a Protestant church, with her temporal and spiritual affairs supposedly in order. What part should her pastor assume now? Should he be consulted regarding the family's decision? Can we expect his cooperation in "shielding" the patient? How can we expect him to help the patient and the family?—Prepared by *Joseph H. Holmes*.

Case E—Religious Views

YOU ARE CONSULTED by a 25-year-old woman because she suspects she is pregnant. In taking the history you learn that she had severe rheumatic polyarthritis at age eight, a recurrence of polyarthritis plus chorea at age 10 and was told that her heart was damaged.

She married at 19; her first child was born when she was 20. She had no particular difficulty during the first pregnancy. Her second, third and fourth pregnancies followed in rapid succession. With each succeeding pregnancy she had more and more difficulty; during her fourth pregnancy she was forced to spend the last trimester in bed because of "heart trouble," which from her story sounds very suggestive of cardiac decompensation.

Now in addition to the symptoms which suggest to her that she is pregnant for the fifth time, she has marked shortness of breath on ordinary activity, swelling of the ankles, and "palpitation."

Your examination leads you to believe that she is pregnant, about 12 weeks. Cardiac examination shows a severe degree of mitral stenosis and unmistakable aortic insufficiency. There is an arrhythmia—frequent extra-systoles—and evidence of early cardiac decompensation.

You learn further that this woman and her husband are devout Roman Catholics. They are in the lower middle class as to income. They are still in debt for the medical and hospital costs of the woman's last pregnancy. They have no immediate resources for care of the four children.

After careful study of the case and discussion with several colleagues you are convinced that this woman's life is in grave danger and that the well-being of the family is at stake.

Your own personal reaction to this problem on medical grounds is that the pregnancy should be interrupted and that steps should be taken to prevent future pregnancies, either by means of sterilization of one of the marital partners or by contraception, but you are equally aware of the serious dilemma in which such advice would place your patient and her family because of their religious convictions.

What would be your best course of action, considering all the medical, religious, social and economic aspects of this case?—Prepared by *H. J. Dodge*.

Case F—Grievances

AS A PRACTICING PHYSICIAN you are consulted by a young married couple for advice. Some months earlier the man of the family became ill with a respiratory infection. Dr. X was called in. After a hasty history and superficial examination he said that this was a severe cold and left a prescription for one of the more expensive new antibiotics. Several days passed during which the patient became steadily sicker with a high temperature, a wracking cough and chest pain. Dr. X was called again. This time he did not bother to see the patient, but by telephone prescribed another expensive antibiotic and advised bed rest and patience. In the following several days the patient did not improve, instead the cough became productive of purulent sputum with a putrid odor. Again Dr. X was called. This time, visibly annoyed, he came to the house, prescribed not one but two different antibiotics and brushed off the wife's hesitant suggestion of calling in a consultant.

The patient's condition steadily worsens; the wife, tired, distraught and almost hysterical, calls Dr. X and demands that he call in a consultant. He does so reluctantly but does not accompany the consultant, Dr. Y, to the home.

Dr. Y, after careful exploration of the problem, makes a diagnosis of lung abscess and insists on hospitalization if the patient's life is to be saved. The wife insists that Dr. Y take charge but does not dismiss Dr. X.

The patient is hospitalized and after long, heroic and expensive treatment, recovers. During his hospital stay, however, Dr. X drops in frequently to visit the patient, although never in Dr. Y's presence. In his visits, Dr. X does not render any service, but only passes the time of day.

This family comes to consult with you solely to find out their responsibility for paying the large fee for which Dr. X has billed them. At the family's insistence Dr. X has itemized his bill. It shows a charge for each home visit, for prescribing by telephone and for each of the visits made by Dr. X to the patient during his hospitalization.

This family has an income of \$300 a month; there is one small child. The family is trying to buy the house they live in. There is a large hospital bill for this illness. Dr. Y's fee is large, but has obviously been scaled down in view of the family's ability to pay. The family has no hospital or medical care insurance. They have borrowed the maximum amount possible against their life insurance policies.

These people want to pay their just debts, even though it may take them years to do so. However, they feel that Dr. X's charge may be excessive in terms of the service he rendered and so they come to you for advice because of your reputation for fairness and good judgment.

What can you advise these people, short of instituting suit against Dr. X for malpractice?—Prepared by H. J. Dodge.

Case G—Folk Medicine

(IN THIS CASE you are asked to look at the doctor-patient relationship through the eyes of a patient, an ordinary run-of-the-mill patient who is neither very sick nor very well and to whom the physician is only one of many sources from which medical assistance may be obtained.)

You are a 41-year-old housewife, born in a small Kansas community where you lived until three years after your marriage at the age of 20. The oldest daughter in a large family, you left school after completing six grades in order

to help your mother take care of the house and your younger brothers and sisters. Your husband, David, who is three years older than you, was born in the same community and was working as a farm hand at the time of your marriage. He had four years of schooling before beginning full-time work. David is a strong man, quite handy with his hands, and has been a good provider. With the exception of an 18-month period in the early 1930's, when he could not find work, he has been steadily employed since your marriage, first as a farm hand, then in succession as a railroad car repairman, carpenter's helper and truck driver. For the past five years he has been an assistant foreman in a plant for making bricks. You have lived in Denver about 10 years.

Your first child, Leonard, was born 11 months after your marriage. Now 21, he is serving aboard a destroyer in the U.S. Navy. Living at home now are you, David and three of your four living children (your second child, Roger, died of pneumonia shortly before his fourth birthday): Rosalie, 17; Anna, 12; and Paul, 7. The five of you occupy a five-room house with modern conveniences—including a 20-inch TV set which you purchased on time payments a couple of months ago. You live in the southwest quadrant of Denver.

Your knowledge of illness and disease is limited to that which you have been able to acquire from your contacts with relatives, friends and neighbors, and from reading newspaper advertisements and listening to radio and television programs. Your personal experience with illness includes a long series of minor ailments suffered by you, your brothers and sisters, your husband and your children and a few illnesses which you considered to be more serious: Roger's pneumonia, Paul's siege with whooping cough when he was three, and the "rheumatism" which laid you up for a time about 10 years ago.

You seldom think about health except when you or some member of the family is sick. You think that health is "natural," that illness is the result of something going wrong, that when illness occurs "something ought to be done" about it. You know a good many things to do about a great many illnesses, and you have often treated the illnesses of yourself and your family, relying on what you know helps various conditions and occasionally seeking additional information from neighbors and friends or from the clerk you have become acquainted with in the neighborhood drug store. You are of two minds about doctors. On the one hand, you are glad they are available to lend assistance when an illness in your family does not respond to your treatment or when somebody in the family gets "bad sick;" on the other hand, you've never felt very satisfied about the service they've given you or very comfortable in your relations with them. You feel that they don't tell you enough when they are consulted and that much of what they do tell you you don't understand. You also feel that most of the time they don't do anything. The time you had "rheumatism" you called in a doctor, but he didn't do anything except give you some pills and they didn't do any good. On the advice of a friend you began seeing a chiropractor, a friendly fellow who told you exactly what caused your pains and what he proposed to do about them. After a few treatments you began to feel better, and in about a month the pains were gone.

You have no regular doctor. You've tried half a dozen on various occasions, but haven't been very satisfied with any of them. When someone in the family gets sick enough to need a doctor you usually ask your neighbors to recom-

mend someone, and you follow closely their advice as to whom to see or avoid.

Both you and your husband take laxatives regularly, and you keep a supply of *Alka Seltzer* or *Tums* in the house to help relieve the stomach pains he frequently gets after eating. When these don't give the desired results he takes *BiSoDol*, a patent medicine which you buy at the drug store. Both of you used to take *Tanlac*, particularly in the spring, as a general tonic, and when *Hadocol* was extensively advertised you bought and used several bottles. You keep a supply of *Vicks Vaporub* and *Musterole* handy to treat colds and sore throats the children have. You'd prefer goose grease, but it is hard to obtain in the city. You keep aspirin tablets for the times when anyone gets a cold or headache, and you've recently switched from ammoniated to chlorophyll toothpaste.

Last week you had a touch of the flu—probably some of that Virus X that has been going around lately—and went to the outpatient department of Denver General Hospital to get a shot of penicillin which Mrs. Reed, your best friend, said was what you needed. You sat for a couple of hours and then were interviewed by some woman who asked you a lot of unnecessary questions about where you were born and how much money your husband earned and how many bills you had and whether you have any insurance. When she finished, you finally got to see a doctor. Although you knew exactly what was wrong with you and what you wanted done, he paid no attention to that and proceeded to ask another batch of questions about your family and what illness they had had and he asked you to take off your clothes for an examination. He prodded and poked you and hammered you in half a dozen different places and used a flashlight to look in your eyes and ears and throat, none of which made any sense because all you had was the flu and all you wanted was a shot of penicillin. After the examination was finished and you had dressed, the doctor said that you were going to be all right and that you should come back in for a follow-up check the following Thursday. You asked about penicillin and he said you didn't need it and he thought it best not to give you any.

Tomorrow is Thursday and you don't yet know whether you are going back to the clinic or not. You are feeling somewhat better—probably as a result of the penicillin tablets your druggist friend sold to you, or perhaps because of the bottle of medicine which Mrs. Reed had left over from her flu and which she gave you after you told her of your clinic experience—and you don't think the clinic did much for you. Also, in talking your illness over with your friends, you've been advised not to waste your time in returning to the clinic, but rather, if you want to get relief, to see Dr. Doe, a naturopath whom several of your friends have consulted and with whose work they are very pleased because he always did something for them and was so reassuring with his promise of a quick and easy cure.

What, if anything, can be done to improve relations between this woman and the medical profession if she shows up for her Thursday appointment at the clinic! How far is a physician justified in going in trying to win her over to a reliance on "legitimate" medical care? How, if at all, can she be given good medical care, without violating her expectations of what a physician is and does? Can or should anything be done about her self-medication? If so, what can be done, who should do it, and how? How much, if anything, does a physician need to know about the folk medical beliefs and practices of his patients?—Prepared by *Lyle Saunders*.

How Effective Is the Matching Plan for Internship Appointments?

JOSEPH M. PISANI and SCHUYLER G. KOHL

THIS ARTICLE is a report on the experience of the past three graduating classes of the State University of New York College of Medicine at New York City in seeking internships through the matching plan. The statistics reflect the medical students' experiences and opinions. Our viewpoints are based on an interpretation of these statistics, as well as our familiarity with the matching plan because of our student advisory responsibilities. We make no claim of originality or uniqueness of the ideas expressed. It is our hope that perhaps similar evaluations elsewhere might clarify the thinking of students, faculty and hospital administrations.

The matching plan for internship was proposed¹ in 1950, "to provide for an orderly method of internship placement, to relieve unfair pressures on students and to facilitate sound advising procedures."² The groups and organizations who participate include the applicants for internship, the hospitals and their staffs, the deans and faculty advisors, the National Intern Matching Program, Inc. and the hospital and medical associations.

In general there seems to be little

disagreement concerning the orderliness of the matching procedure in comparison to the plans which preceded it with their attendant multitude of wires, phone calls, last minute decisions and notices. The faithful adherence to the schedule of dates published by the National Intern Matching Program by all parties concerned has been helpful in building confidence in the procedure and has insured widespread participation as evidenced in Table 1. These figures show that practically all approved hospitals and graduates of approved medical schools joined in the plan over the past three years.

If anything, complaints have been expressed to the effect that the matching procedure is too orderly, as it is too well-regulated and does not allow enough freedom. As one head of a hospital service put it, he just wasn't going to depend on machines to pick his intern staff for him.

Comments of this nature are the result of pressures felt by the hospitals in the competition for intern candidates. Reference to Table 1 reveals the keenness of this competition, since each year there have been over 4,000 more internship opportunities than available applicants. In addition, there is the natural de-

Dr. Pisani is assistant dean and Dr. Kohl is associate professor of obstetrics and gynecology, State University of New York College of Medicine at New York City

sire for complete freedom of operation by both the hospital and the student. However, this is frequently coupled with an insufficient awareness of how the plan operates. Since its inception, the sponsors of the plan have tried to make it clear² that the plan does not do a number of things:

"1. It does not distribute interns or place interns where they do not wish to go.

"2. It does not set quotas or restrict the number of interns a hospital may seek.

"3. It does not interfere with the relationship between student and hospital.

"4. It does not interfere with the bargaining rights of either hospitals or students—free competition is fully permissible, including the right of both hospital and student to present themselves to the other in any way they desire.

"5. It does not advise students where to intern or of the merits of the various internships.

"6. It does not approve hospitals for intern training."

Perhaps one other item should be added: namely, that mere participation in the matching program by a hospital does not insure its obtaining a full complement of interns for any given year. Although this should be obvious, it seems to have been

the source of some of the criticism which has been directed toward the plan by the hospitals.

Despite the fact that prior agreements between hospitals and applicants as to their ranking of each other is not in the spirit of the matching plan, it appears that some hospitals and some students do enter into such commitments.

In reporting on the national results of the matching program during its second year of operation, John M. Stalnaker said:³

"As with any new program of national scope and some complexity, not all students and hospitals appreciate the values of the matching program or recognize how it operates. As a result, some infractions of the simple, but necessary, regulations may result. Such infractions are assumed by some hospital administrators to be more widespread than they are, and also, when they occur, they are falsely assumed to give the guilty hospital or student distinct advantages . . . The very large majority of the hospitals, however, act in good faith, and infractions of the rules are much smaller than believed and, in most cases, are based on ignorance of the rules and not a desire to act unfairly toward other hospitals in the matching program."

TABLE I
Results of Matching Plan Operations 1951-54^a

Year	No. of Hosp. Units	No. of Interns Sought	No. of Graduates Participating	No. of Interns Matched	% Appointments Matched	% Applicants Matched
1951-52	795	10,414	5,681	5,584	53%	98%
1952-53	808	10,971	6,033	5,744	52%	95%
1953-54	820	10,729	6,412	6,051	55%	96%

^aBased on annual reports presented by Stalnaker et al., U. S. and results of matching procedure for 1953-54 and modified to show per cent of appointments filled and per cent of applicants matched through the matching plan.

How Effective is the Matching Plan?

The object of our survey, which has been conducted each year since the inception of the matching plan, was to ascertain the extent to which students in one rather large medical school entered into such arrangements. (Results of this three-year survey are summarized in Tables 2 and 3.) Since this assessment had to be conducted by means of a questionnaire, it obviously is susceptible to the inherent weaknesses and disadvantages of this approach. However, we feel that several circumstances give validity to the results. First, the questions asked were simple and brief, as will be noted in Figure 1.

meetings called for the purpose of familiarizing the students with the matching plan. Hence, we feel it reasonable to assume that the students understood why prior commitments are not authorized by the National Intern Matching Program. In our opinion, better definition of exactly what is meant by the term "prior commitment" seems desirable. At times, the detailed information furnished on the procedure for students and hospitals under the matching plan may lead to misunderstanding because of the frequent tendency to read such information with too little care. An example of this can be found in paragraph 7 of the in-

FIGURE 1

1. I made application to _____ hospitals for internship appointment.
2. _____ hospitals called me for interview.
3. A commitment was sought by _____ hospitals.
4. I made a commitment at _____ hospitals.
5. In the event a commitment was made by both parties, was this confirmed by the appointment notice today?
Yes No Not Applicable
(circle one of three)
6. I received appointment at the hospital of my _____ choice (ranking).
7. In my opinion, the matching plan procedure is (check appropriate statement):
(a) Satisfactory as is.
(b) Unsatisfactory.
(c) Satisfactory, but in need of amendment.

*The questionnaire used in 1952 was basically similar, but more detailed than the one reproduced here and used in 1953 and 1954.

Second, the students were not given prior notice of the survey. A questionnaire was given each student at the same time he received notice as to the matching plan results, with the request that it be completed before leaving the dean's office. Third, signatures were not requested.

The subject of commitments was discussed with the students at class

formation accompanying the hospital directory, which was distributed to all the participating students last year.⁴ This paragraph read as follows:

"There is absolutely no reason for a student to want to change his instruction about which hospital he prefers because of the way a hospital ranked him. Therefore, it is all right

TABLE II
Results of Survey 1951-54

Year and % Return	Median No. of Applications per Student	Median No. of Interviews per Student	% Reporting Hospitals Seeking Commitments	% Reporting Students Seeking Commitments	% Reporting Bilateral Commitments**	Student Opinion of Plan		
						% Feeling Plan Satisfactory	% Feeling Plan Satisfactory, but Amendment Needed	% Feeling Plan Unacceptable
1951-52 94% return (92 of 98 participants)	3.9 (range = 1-13)	2.5 (range = 0-12)	54% (50)*	40% (37)	27% (25)	55.4% (51)	35.9% (33)	8.7% (8)
1952-53 99% return (137 of 139 participants)	2.3 (range = 1-7)	2.2 (range = 0-7)	18% (25)	12% (17)	10% (15)	87.6% (120)	11.7% (16)	0.7% (1)
1953-54 98% return (128 of 131 participants)	3.1 (range = 1-12)	2.6 (range = 0-9)	39% (50)	18% (24)	17% (22)	67.4% (86)	30.2% (38)	2.4% (3)

* The figures in parentheses in this and succeeding columns represent actual number of students so reporting.

**The percentages cited in this column are included in the preceding two columns. These latter columns also include multiple instances of hospitals or students seeking commitments; i.e., 54% as cited for 1951-52 means that 54% (or 50) of the questionnaires reported hospitals seeking commitments, and not infrequently this was the case in more than one hospital on a student's list. Similarly, although much less frequently, students reported seeking commitments at more than one hospital on their list.

if a hospital wishes to tell you how it may plan to rate you. However, the hospital does not have to do so, and you have no right to demand such information from them. In many cases, the hospital will not know, or may make only a general statement, because it has not yet looked over all its applicants, or it may not want to tell you at all."

If either some of the students or hospitals participating in the plan last year skimmed over this paragraph, misunderstandings could easily result. Students who had not read this carefully might feel they were being pressured by hospital internship committees which had read the

item in detail and were acting in good faith. Hospital administrators who had not been meticulous in their reading, having heard of other hospitals telling students how they planned to rate them, would object and feel such hospitals had violated the rules.

We have checked with the sponsors of the matching plan on several occasions regarding the term "commitment." They have assured us that it is permissible for the student to inquire, in a general way, whether his application will be given consideration in the light of his academic standing, recommendations, interview or other pertinent factors.

How Effective is the Matching Plan?

It is often difficult for a student to estimate realistically his chances of obtaining an internship appointment at a given hospital. Hence, such an inquiry might prove to be practical and time-saving. However, when inquiries get to be more detailed and bear the connotation, either direct or implied, that unless either party is rated high on the other's list, the application will not be made or considered, a commitment is being sought contrary to the principles of the matching plan.

A student may be considering only one hospital because of having had part-time employment at that hospital, or because of its location and reputation in the community in which he plans to settle, or for some other reason, and in good faith, he may let the hospital know of his strong interest in its program. In turn the hospital, because of its prior knowledge of the student, similarly may indicate its hope that the student will join its house staff. As long as neither party states or implies its interest is contingent upon the other's

preferential ranking, it would appear that such exchanges have not violated the spirit of the plan.

In our local survey the heaviest commitment activity was reported during the plan's first year of operation. This might be anticipated in view of the students' and hospitals' uncertainty about each other being heightened by a mutual skepticism regarding the mechanics and outcome of the matching plan operation. It was also reflected in the students' opinion of the plan that year and the numerous comments on the questionnaires objecting chiefly to the pressures being felt to enter into commitments. One of the students that year wrote: "The plan is excellent. The only thing left to be desired is that both hospitals and students display as much integrity as would be expected from them. I'm sure that as everybody gains more confidence in the plan, fewer 'deals' will be made and the plan will be realized to its fullest extent."

Results in 1952-53 seemed to bear out this prophecy, but last year the

TABLE III
Student Ranking of Hospital Appointment—Total Group vs. Group without Bilateral Commitment

Year	% of Total Group Appointed to Hospital within Top Three Choices	% of Students Not Involved in Bilateral Commitments Appointed to Hospitals within Top Three Choices
1951-52 (92)*	92.3% (85)*	92.5% (62/67)**
1952-53 (137)	94.2% (129)	94.2% (115/122)
1953-54 (128)	92.9% (119)	91.5% (97/106)

*Figures in parentheses in this column represent actual number of students concerned.

**Figures in parentheses in this column represent proportions on which percentages are based.

attempts by hospitals to seek commitments increased significantly.

Apparently the bilateral commitments have been kept for the most part. In 1951-52, only three bilateral commitments were not observed by the hospitals concerned, and in six other instances students admitted they had made commitments with two hospitals, hence breaking one of their double agreements. In 1952-53, only one such agreement was not observed by a hospital and last year a student did not implement one of his two bilateral arrangements.

Of more importance is the data reported in Table 3. This shows that our students who have not entered into bilateral commitments fared as well as the total group of students participating in the survey. They obviously did not do as well as the minority engaged in mutual agreements. However, we feel that they would not wish to make up the difference in results if they had the opportunity.

These results lead us to believe that such commitments are unnecessary. They get the graduate off to a bad start with respect to ethical conduct in his professional career, and are unfair to his colleagues who observe the spirit of the plan. A recent letter to the editor of the *Journal of Medical Education*⁶ emphasized these latter points. Student advisors realize how disturbing unfair pressures can be to most students. As a result, the student may drop a hospital from his list despite its attractiveness from other standpoints.

Actually, neither party should feel any necessity to exert pressure on the other under the ground rules of the plan. The hospital operates from the top of its preferential list down toward the bottom until its places are filled. No candidate who is un-

desired will be appointed at a hospital if so designated by the hospital in its preferential list. The student operates from the bottom of his list on up, as far as he can go, depending on places available in the hospitals on his list during the course of the matching procedure. Further, the student should not be overanxious about the exact ranking on his list of the hospital to which he is appointed if he only applies to hospitals which he has visited and carefully analyzed. If he is confident that any one of the hospitals on his list will offer a worthwhile continuation of his educational experience, so that his ranking is based primarily on relatively minor factors of personal convenience, then he has used the plan as intended.

In brief, it is our considered opinion that the matching plan is effective in accomplishing its objectives in contrast to previous methods utilized to handle the details of finalizing applications for internship appointment. The students at our college also appear to feel that the plan is generally satisfactory and would be ideal if the pressures to seek commitments were entirely absent.

Summary

1. The operation, purposes and goals of the National Internship Matching Program have been briefly discussed.

2. The experience and results of a local survey carried out in a college of medicine situated in the New York metropolitan area are reported.

3. The opinion is expressed that the matching plan for internship appointment is effective in meeting its objectives and could be made even more effective if all those participating had a better realization of its principles of operation. This might

How Effective is the Matching Plan?

obviate what appears to be an increasing tendency for the primary participants to exert undue pressures upon one another by seeking prior commitments in violation of the spirit of the program.

REFERENCES

1. F. J. MULLIN: "A Proposal for Supplementing the Cooperative Plan for Appointment of Interns," *Journ. of Assn. of Am. Med. Coll.*, Vol. 25, No. 6, November 1950.

2. F. J. MULLIN, JOHN M. STALNAKER: "The Matching Plan for Internship

Placement," *Journ. Med. Edu.*, Vol. 27, No. 3, May 1952.

3. JOHN M. STALNAKER: "The Matching Program for Internship Placement," *Journ. Med. Edu.*, Vol. 28, No. 11, November 1953.

4. "Directory of Approved Hospitals Participating in the Matching Program for Internship Appointment for 1954," distributed by the N.I.M.P. in October 1953.

5. JOHN M. STALNAKER, E. C. SMITH: "The Third Year of Operation of the National Intern Matching Program," *Journ. Med. Edu.*, Vol. 29, No. 8, August 1954.

6. Letter to the Editor, *Journ. Med. Edu.*, Vol. 28, No. 8, August 1954.

To Serve Medical Education

WHILE IT SEEMS TO ME probable that medical education will in the end be associated almost invariably with a university, it is nevertheless true that many colleges and universities have injured the cause of medical education in the past by their desire to include a medical school as part of their organization. Many colleges and universities are today lending the shelter of their charters and the support of their names to medical schools which are purely commercial. Such a connection is a thorough disgrace to a true college or a decent university. No college has the right to undertake a medical school except from the one motive, namely, to serve medical education and the betterment of medical practice. To undertake a medical school merely for the sake of institutional completeness or to be able to print a few more names in the catalogue is a betrayal of education, not a service in its interest.—From an address by HENRY S. PRITCHETT, Ph.D., president, Carnegie Foundation for the Advancement of Teaching, at the 16th Annual Meeting of the Association of American Medical Colleges in New York, March 15-16, 1909.

Professional Education as a University Function

Main theme of the Association's 65th Annual Meeting, held October 18-20, 1954, in French Lick, Ind., was "Professional Education as a University Function." This theme was discussed by a university president, a law school dean, a medical college dean and a theologian. Medicine's viewpoint was presented by Stanley E. Dorst in his Presidential Address (see *Journal of MEDICAL EDUCATION*, December 1954, page 11), and theology by the Rev. John Courtney Murray. Published on the following pages are the addresses made by Henry T. Heald, who spoke as a university president, and Sheldon D. Elliott, who represented the legal profession.

As Viewed by a University Chancellor

MY UNDERSTANDING of the objective of your meeting this year is to look broadly at the whole field of professional education and to consider the relationship of professional education in medicine to education for the other professions.

I have been asked specifically to discuss engineering education, but I have been urged not to limit my remarks to engineering. It has been suggested that I might also discuss the relationship of a medical school to the university of which it is a part. To these two areas of consideration, I should like to add a third; namely, some thoughts on the responsibilities inherent in true professional status and conduct.

I hope that your program allows time for discussion of these matters after Mr. Elliott and I have presented our more or less formal remarks, for

Mr. Heald is chancellor of New York University.

HENRY T. HEALD

I am convinced of their great importance and I am aware of wide differences of opinion concerning them. And I believe most sincerely, as I shall emphasize later on, that interdisciplinary discussion is probably the best way to resolve differences, to create mutual understanding and respect and to further the aims of all professional education. In this framework, then, let us first consider the function of a university.

The term "university" has been applied traditionally to institutions of higher learning which embrace all fields of basic knowledge of importance to society. Universities from their beginning have included professional schools. The first professional education in universities was in theology, law and medicine. En-

gineering was added much later, along with other occupational pursuits which have gradually taken on, to greater or lesser degree, the essential elements of a profession.

A university is the channel through which people enter the professions and, through professional practice and conduct, influences the life of the community in which they live. There is, in fact, almost no other channel today for professional preparation in many areas. Thus, the universities and the professions, advancing along parallel lines, each working with the other, have come to exercise a tremendous influence on our physical environment, our society and our culture.

The guiding principle of a university is, or should be, its forward look based, of course, upon a study of the past. It educates people not for today but for tomorrow. The quality of today's education determines the kind of society we will have 25 years from now. Professional competencies are indispensable for the maintenance and advancement of modern society.

I am sure it is not necessary to state the meaning of the word profession nor to remind you of the code of professional conduct specified in the oath a doctor takes upon entering the medical profession. But, at the risk of what may be for a few of you a slight repetition, I should like to draw briefly upon some remarks I made earlier this year on this same subject:

"A profession is quasi-public in nature. It requires high standards of competence and conduct. As a protection to the public, its members are frequently subject to public supervision in some form. And most of all, it demands of all who engage in it a dedication to the service of society as its prime motivation.

"The keystone of professional con-

duct is integrity, and integrity is not a divisible entity. It doesn't exist now and then in the same person. It cannot be separated into personal and professional compartments. Without it, no person, regardless of his fund of knowledge or his technical skill, can reasonably claim professional status.

"There is, then, for all those who claim to be professional, a built-in inescapable responsibility for service above self, for undisputed honesty in thought and performance, for, in short, a sincere, earnest and unwavering desire to promote the general welfare."

All professionals base their actions on a sound background of theoretical knowledge which they apply to concrete situations. This knowledge is constantly changing and expanding. The fields of medicine and engineering offer dramatic examples of this rapid change.

Another essential characteristic of a professional is the concern of its practitioners about the qualifications of those who enter the profession. Sometimes this takes the form of rigidly prescribed curricula controlled through the accrediting process and legal requirements for admission to practice. The degree of such control varies among the professions and seems to depend to a considerable extent upon the solidarity, or perhaps the rigidity, with which the profession is organized.

The engineering profession is not tightly knit. There is no single organization to which virtually all members belong, as in medicine. There is instead a multiplicity of societies concerned with different fields of engineering practice. Thus the engineering profession exerts less direct control and exercises a smaller degree of restrictive influence on engineering education than is the case with medicine.

While members of the organized engineering profession have great concern for engineering education and frequently criticize it and make suggestions, they are not in a position to dominate it. Perhaps, on the whole, this is a fairly healthy arrangement, because improvements in education come from educators who may be good practitioners but who are primarily educators.

The interests of a university and of a profession are, generally speaking, the same; but in many specific cases they are not, and I contend that the educator should not, and in the long run cannot, abdicate his responsibility and turn it over by default to an outside group, no matter how pure the motives of that group. The job of the educator is to educate, the job of the practitioner is to practice.

A university, as I have noted, must look ahead. It is concerned with the future. It must be willing to study new ideas, concepts, practices and procedures. It must take a long-range view. So should a profession, but too often many of its members concentrate on the short run, on the *status quo*. The most exaggerated examples of this, in my opinion, have been in the health professions, especially medicine and dentistry, where the concern too often has been to protect the practitioner rather than to improve the practice.

Major Responsibility

The major responsibility of the medical profession is to the people, to the society that has provided the opportunity to serve. To protect special privilege at the expense of discharging public responsibility is, to my mind, a professional mistake. Short-range benefits are more than outweighed by the long-range damage. The extension of better medical

service to more people is a responsibility of the medical profession. To oppose blindly without constructive counter-suggestions is to court disaster.

The basic objective of engineering education and medical education is the same—to educate a professional person who will be able to discharge the responsibility of his professional calling and take his place as a broadly educated citizen in a free society. The methods of achieving this objective, however, are quite different.

The engineering student is an undergraduate. He begins his professional education immediately after high school. His curriculum moves him along two parallel lines—scientific and technological subjects on the one hand, social and humanistic studies on the other. In medicine, the student first covers his liberal arts subjects, with preliminary work in the basic sciences. Then he goes into a highly intensified professional program of long duration.

I think one result of this, for the medical student, may be that as he gets deeper and deeper into his professional work, he gradually forgets whatever liberal education he may have obtained and eventually puts it aside altogether as unrelated to his existence as a member of a profession.

Another major difference is the length of the course of formal study. In the process of acquiring new knowledge, developing new techniques and raising standards generally, medicine has added to the length of the curriculum. There has been almost no inclination to reduce or eliminate anything, although there is some unrest about the long period of preparation for medical practice.

In engineering, four years is still the time considered necessary to qualify as a beginning practitioner,

although a few schools have experimented with five and six-year curricula. This is not to say that engineering education has not changed greatly over the years. It deals more in fundamentals. There is more emphasis on the social-humanistic stem. Techniques have tended to disappear and principles have been accentuated. There is much greater emphasis on fundamental science and mathematics. Much less time is wasted on the vocational aspects of engineering subjects. It is more a science, less an art. There is still a large element of judgment; the emphasis is not on the "how" but on the "why."

Research, of course, has risen rapidly in both engineering and medicine, and much new knowledge has been added to the fund upon which educators can draw. But whereas engineering curricula have been relatively easy to alter, as normal academic time-lags go, medical curricula have remained relatively inflexible. I would raise the question as to whether this disinclination to expand or contract the curricula to fit the pattern of new knowledge is in the best interests of the student, the profession, and the health needs of the people.

I also wonder whether the lengthening of the period of professional preparation, with appropriate emphasis on liberal education, has really done very much, in practice, in producing the kind of people who have the qualities we like to think of as being synonymous with liberal education, namely, integrity, leadership, an understanding of their responsibilities as citizens and a willingness to do something about those responsibilities.

I would also raise the question as to whether some of the fault for inadequate preparation does not lie with the liberal arts colleges them-

selves, who too often, perhaps subconsciously, orient their programs professionally rather than in the direction of liberal education in the traditional sense.

Now, what about the attrition rate in professional preparation? I am fascinated by the differences. Attrition in medical schools is less than in any other type of educational program. Less than half of those who enroll as freshmen in engineering finally graduate. Roughly the same is true for law. But in medicine, more than 90 per cent graduate. Why is this so?

The only good answer is that the medical schools do a better job of selection, and I think that this is true. The candidates are older, and perhaps the admission procedure can hit the mark more often. But I wonder if the medical schools do as good a job selecting their students as the staying rate indicates. It seems anomalous that in studying the validity of admission devices no reference is made to the quality of the final product of the selection—the practicing physician.

Another difference between medicine and engineering is the nature of the practice of the profession. Engineering, in a strict sense, is a highly creative and professional activity. It is also a human endeavor in which many of the members, again strictly speaking, do not practice in the sense that they maintain a close personal, individual relationship with their clients. They more often work as a team (as, indeed, more and more doctors are doing). They do not collect fees but usually are salaried. A few work for themselves, as it were, but most are employed by corporations, research laboratories, government agencies or other organizations where group effort is the rule. And of course a

great many soon get away from technical work and become managers of industry. A *Fortune* survey of the top officers of the 250 largest American corporations disclosed that nearly 50 per cent had engineering and science backgrounds.

Some of these differences in the two professions are historical. Some are inherent in the nature of the two professions. Both medicine and engineering have attained a high degree of excellence under their present systems of education and have made tremendous contributions to the welfare of society. Neither can remain static, and the task of responsible people in both professions is to see that whatever change comes is constructive change.

Relationship To University

Now I should like to turn briefly to the second subject to which I was asked to address a few remarks—the relationship of the medical school to the university.

In 1910, Abraham Flexner urged that medical schools be brought under the management of universities and he said that medical schools, which were then parts of universities, were not being given enough money. Today almost all medical schools are connected with universities, and, if I understand correctly what I hear regularly, they still don't have enough money.

Clearly all professional schools ought to operate within a university framework, for that is the best assurance against vocationalism in professional education. Today the professional in any field needs to be in the main stream of human knowledge. Medicine needs to know about developments in electronics and nuclear physics. Engineers need to be more concerned with human beings.

It is, of course, possible for a professional school to be a part of a university structure and still be just as vocational as if it were separate. The question is: how can that be avoided?

The outgrowth of the Flexner report was a great upsurge in scientific medicine, and with scientific medicine came specialization which continues apace today. I do not contend that scientific medicine is not good, nor would I turn back the clock a half-century in medical education, but I cannot help but think that an over-emphasis on specialization has helped to keep the gulf between universities and their medical schools from being bridged.

Specialists talk to themselves, not only within medical schools but in other parts of the university as well. Different disciplines tend to become little watertight islands in the academic sea, and medicine becomes the least accessible of all.

Added to this problem is that of geographical separation, with medical schools a hundred miles from the parent university or in the next county or in some other section of the city. Across the campus is far enough. But the fact is that we can't rebuild all our medical schools on vacant land in choice locations, so we shall have to whip the problem in some other way.

Then there is the constant need for money. Medical education, I need not remind any of you, is expensive, and it takes a disproportionate amount of a university's available resources. Faculties in the rest of the university know this and resent it. So, instead of trying to work more closely with medicine, they remove themselves even further from any kind of cooperative effort.

Not the least of the contributing causes to the problem of university-

medical school relationships is often the attitude of the university itself. Some universities have so far removed themselves from their medical schools that their relationship is virtually nothing more than the legal papers that bind them together.

The problem cannot be solved by castigating the medical staff, by the parent's trying to disown the child in all but name, by worrying all the time about the cost of medical education or even by blaming the specialist.

I suspect that the cure for cancer eventually will be found by a single-minded specialist who works in relative isolation and I don't mean to discount his contribution now or then. But the people in the university and the people in the medical school must both take an interest in the whole university. It is a two-way responsibility that neither group can escape.

Universities should encourage and medical faculties should respond to all kinds of two-way communication between medicine and the other university disciplines—in curriculum planning, in administration, in teaching and research programs, in fund raising (when the institution relies upon gift income instead of tax revenue) and in all kinds of informal contacts. This applies within the medical school staff, too. Often, under pressure of day-to-day requirements, even these people don't get together.

Educational Aims

Some mechanism needs to be found and the time taken, even at the expense of what may seem at the moment to be more important matters, for administrators and faculty members to meet together and talk about educational aims, methods and results, not always about buildings and money. And these groups should be

a mixture—in age, rank, field of interest and administrative level. Great good can come from an informal session in which there is no agenda and no restriction on the free interplay of ideas. This kind of informal discussion laid the groundwork for our medical center at New York University, and it is being used with great effectiveness in our current universitywide self-study.

Why is this important to medicine? Because it broadens the perspective of medical education. Medical educators can learn much from other fields of university interest. The best current example is the growing realization of the importance of the social sciences to medicine and the increasing cooperation between doctors and social scientists in trying to understand the cause and cure of disease. But most important, it is the best way I know to ensure that students in medicine will continue with a scholarly and professional attitude throughout life and not become solely vocational in their outlook and commercial in their practice.

And that leads me to my final point: the responsibilities of a profession. In a recent talk on this subject, to which I referred earlier, I listed three major responsibilities: first, to perpetuate itself in numbers adequate to meet the demand for its services; second, to police itself, and third, to subserve itself to the public welfare. Together, these mean good citizenship with special responsibilities to society because of the special privileges which society has granted.

Certainly the least we can expect of professional people is that they meet the minimum requirements for good citizenship, which is to abide by the laws that govern the conduct of all citizens. But even this seems too often to be expecting too much. I am puzzled by the people who have all

the trappings of a profession and yet completely disregard the letter and spirit of professional ethics.

Why is this? Is it because of the way they're selected? Is it because of the way they're taught? Is it because of the way they work, the pressures of their profession, the demands of society? I don't know, but I am distressed by the number of defections in the ranks of the professionals.

I do know that a profession suffers in public acceptance every time one of its members demonstrates that he possesses anything less than intellectual integrity, the professional competence and the simple honesty that the public has come to expect of his profession.

Actual lawbreaking is an obvious

thing, of course, when it is detected. But there are far more subtle means by which the public makes up its mind about a profession. The conduct of its members in all their relationships is subject to close scrutiny, and attitudes are formed in many ways. Public dissatisfaction is easier to create than public acceptance.

A profession has no God-given right to the privileges it enjoys. These privileges are given by the people, and they can be taken away by the people. The opportunity to serve must be earned by each member of a profession, and he must think of it as his highest goal. That some lose sight of this high purpose should be the uppermost concern of the professions and of those who educate for the professions.

As Viewed by a Law College Dean

AT THE OUTSET, let me establish a tentative frame of reference for my remarks. I say "tentative," because I should like, if I may, to reserve the privilege of departing from its boundaries as the spirit moves me. And I am one whom the spirit pushes around quite freely.

I propose, hopefully, to touch on some of the factors that distinguish legal education and its problems from medical education and other "over the fence" professional pastures that look so idyllic from our side. I shall, within my limitations, observe a few similarities in our respective aca-

SHELDEN D. ELLIOTT

demic pastorates. Further, and time permitting, I shall venture suggestions on our community of interest and responsibility.

In the United States today there are some 165 law schools—more than twice the number of present-day medical schools. Moreover, unlike the situation in medical education, nearly one-fourth of these law schools are unapproved by any national professional accrediting agency. Of the 127 approved schools, 109 are members of the Association of American Law

Mr. Elliott is dean of the New York University Law School and president of the Association of American Law Schools.

Schools, and of these all but three are affiliated with universities, either public or private.

The survival of the unapproved law schools is a not-to-be-disregarded factor in legal education. Their graduates, and an additional group of nongraduates and self-taught applicants, may still be eligible candidates for the bar examinations and the resultant strain on the examining mechanism is heavy.

In some of our states today, the minimum standards of eligibility to take the bar examination remain deplorably low. This is more significantly true in those states where the prescription of standards rests with the legislature instead of being, as it should be, assumed by the courts. I have listened in state legislative halls to impassioned oratory in opposition to higher educational requirements for admission to the bar—oratory which dripped with sympathy for the poor boy who cannot afford the costs of college and law school training. Having also observed the legislative progress of standards in medical education, I say to you medical deans that you should, each night, get down on your collective knees and thank God that Abraham Lincoln was not a doctor.

Legal education in today's law schools presents certain characteristics and factors that distinguish it from other professional training. While the law is basically homogeneous, its substance as well as its practice, unlike medicine, varies in detail from state to state. Only a very few states require pre-admission apprenticeship training. Hence the major burden of training and selection falls on the law schools.

Dean Albert J. Harno, in his book, "Legal Education in the United States," published in 1953 as a volume of the overall survey of the legal

profession, comments on apprenticeship as follows: "Often the debate over legal education has centered on the relative merits of apprenticeship as opposed to university training. While the profession has always had some individuals who have spoken with clarity on the subject, the prevailing notions on preparation for law have vacillated from one period of history to another, depending on whether this motif or that was in the ascendancy. The controversy has not ended. Today, when legal education in university law schools is, in the United States, the common route to the profession, one cogent criticism of the schools is that the training they offer is wanting in perspective and breadth of learning, but the most vocal stricture is that it is not practical enough."

Dean Harno's book, by the way, is a suitable companion volume for Dietrich and Berson's, "Medical Schools in the United States at Mid-Century." The two publications together provide a contemporary treatment of comparable factors in legal and medical education.

Chancellor Heald has noted the relatively low attrition of medical students once they have surmounted the barrier of admission to medical school. I do not wish to suggest that law school admissions are not selective. They are, and rather carefully so, but the disproportion of those applying to those selected is much less than in medicine and dentistry. Despite our selectivity, however, the percentage of those ultimately surviving the successive gauntlet of law school courses and bar examination is, as the chancellor has indicated, far lower than in the medical schools. This mortality is not a source of sadistic satisfaction to the legal educators. Most of us deprecate it, and we are hopefully seeking ways and

means through which we may reduce or eliminate it.

Experimentation with the Law School Admission Test, devised and administered by the Educational Testing Service, continues with the close cooperation of the law schools. Similar cooperation is emerging in many states at the bar examination level, through the development of joint committees representing bar examiners, the law schools and practicing attorneys. There has also been expressed, in some quarters, an interest in the development of a national bar examination patterned somewhat along the line of similar developments in the medical and other professions. This latter possibility, however, will have to overcome a not inconsiderable opposition from among the bar examiners themselves in many states. Perhaps—and I stress the word “perhaps”—these various developments may someday serve to narrow the numerical gap between initial selection of law students and their eventual entry into the profession.

The objectives as well as the techniques of legal education are in several respects also distinctive: the training of men for an essentially adversary profession requires emphasis on special skills and insights. I shall touch on some of them in a moment. Suffice it to say here that they are less easy of succinct formulation than Dietrich and Berson's summary of the objectives of the medical curriculum, namely, that it “. . . should help the student to acquire basic knowledge of man, his physiological functions, the ills to which he is subject and the most effective preventive and therapeutic measures available.”

At the preprofessional level, the scope of a lawyer's responsibilities calls for broad, rather than specialized, training. For this reason, legal

educators and lawyers have reached common agreement that detailed specification of a prelaw subject matter curriculum is less desirable than a statement of objectives and desired values. A successful formulation was achieved by the Committee on Pre-Legal Education of the Association of American Law Schools and was adopted by the association in 1952. Reprints of the statement of association policies have been widely distributed to colleges and undergraduate prelaw advisors and it has met with a most favorable response. I realize that other professions have similarly recognized the need of breadth rather than specialization at the preprofessional level. I venture to suggest, however, that for those interested the association statement may provide some helpful ideas.

In connection with prelegal education, the trend over the past three decades has been to increase the quantitative requirement, so that generally today a minimum of three years of college work precedes the normal three years of full-time law study. Perhaps it is worth noting that pressure for such extension has usually come from the practicing bar, by way of amendments to the American Bar Association's standards for the approval of law schools. These standards also provide the basic criteria of what constitutes an “approved” law school in the generally understood sense. Under them, part-time law schools, providing four-year programs and otherwise meeting the specified requirements, are fully recognized and approved. In this respect—the recognition of values in and the need for part-time legal education—law has maintained a different view from that of medicine.

A look at today's law school curriculum discloses possible similarities in essence with the curriculum of

medical schools. The first-year curriculum comprises, almost uniformly, basic subjects such as contracts, torts, property and criminal law. These may be compared roughly with anatomy, biochemistry and physiology in the first-year medical curriculum. Beyond the initial year, however, variety in subject matter among the law schools, as I suspect is true in the case of medical schools, becomes more apparent, as does variety in teaching techniques and methods.

In addition to the case-book method, traditional in law schools for more than a half-century, new devices such as legal aid clinics, legal writing courses and visual aids are being increasingly utilized. Newer subjects, such as taxation, administrative law, labor law and trade regulation have been added to the curriculum. There is increasing concern with, and attention to, the subject of the legal profession itself, its ethics and responsibilities. Nor has the methodology of legal instruction *per se* been overlooked. The quarterly *Journal of Legal Education* is rich in articles dealing with teaching techniques and examination methods, and the experiences and suggestions of law teachers in the area of effective pedagogical presentation and classroom discussion are lively subjects of fruitful debate in our association's annual meetings.

Leadership Concept

Probably no trend in legal education is so significant as the broadening of horizons to include the important concepts of leadership in community, national and world affairs. The keynote was most effectively sounded by Pres. Robert E. Mathews at the association meeting at Denver, Colo., on December 30, 1951. I should like to quote his state-

ment of the challenge together with his suggestions for meeting it:

"It is tragically true in these days that it is only in that half of the world where personal freedom yet lives, that there also lives as a vital force integrity in the search for truth. A chief harbinger of that integrity is education and the chief channel of supply to public leadership is legal education. It is we here today who are responsible for what goes through that channel.

"In terms of training in the skills of the profession we have done a better than passable job. In terms of insights into the use of those skills we have also done well. Our deficiency lies in the more baffling problem of insights into what have been heretofore considered nonlegal values. But to consider these as outside our scope has been our grave error. These values are themselves the very heart of our concern. It is they which will determine the lawyer's contribution to American life. Integrity is the perception, understanding and courageous adherence to moral values. Without this a democratic society cannot long exist. Organized legal education has here an opportunity for national service of great need and high significance.

"While we traditionally think of lawyers as conservative, it is tragic that so few are engaged in actively conserving the values that make up the very core of American tradition. It should be of no little concern to us that so many law-trained persons are indifferent to these values, are even active participants in programs that can only weaken them.

"Leadership in a democratic society is like leadership in a totalitarian state in one respect only—that it requires understanding of the values on which the structure of government rests. For too long we have assumed

that training in this understanding can be left exclusively to others. It is time now to accept the fact that the training of lawyers in the ideals of the government so many of them will serve, and under which all of them will live, is a matter of the deepest concern to us in legal education.

"Against this background I should then like to submit to you certain specific suggestions:

"First: That we recognize that one of the most pressing problems facing legal education today is the teaching of moral values and responsible leadership in a democratic society.

"Second: That we study the offerings of member schools and the reports now emerging from the pending Survey of the Legal Profession, to determine the present state of our experience with course content and teaching methods and materials in these areas.

"Third: That we re-examine the store of writings that have dealt with these matters during the past years and classify the discernible paths and trends; that we accumulate so far as possible the accounts of these materials, and that we formulate appraisals and recommendations as helpful guides for the future.

"Fourth: That we call to our aid all the resources to which we can obtain access; that we approach the leaders of other professions where these problems are also pressing, and inquire of them their experience and solutions; that we confer with persons engaged in the teaching of subjects in which techniques may have been discovered that have proved useful for the encouragement of a sense of values; and that we approach appropriate foundations with a view to obtaining a grant that will make possible a program on the scale I have outlined here."

That other professions are similarly concerned was amply demonstrated at the Inter-Professions Conference held at Buck Hill Falls, Pa., in 1948. Prof. Elliott Dunlap Smith, of Carnegie Institute of Technology, stated, "Our complex and far-flung democracy is a democracy of men who work. Unlike the democracies of the past, it has no leisure class which is its governing class. If its imperiled freedom is to survive, its keenest and most disciplined minds—and by and large this means its professional men—must devote their moral energies and intellectual powers to becoming leaders in solving its problems."

Teamwork for Survival

Perhaps I can suggest an illustration that bears out Professor Smith's point. Technological progress has recently thrown together, with grim realism, several professions whose cooperative teamwork may well prove to be the salvation of western civilization. I call to instance the typical atomic energy project. Here, drawn almost abruptly from their normal spheres of concentration, the engineer, the scientist, the industrialist-manager, and to a less obvious but not-to-be-neglected degree, the medical expert and the lawyer, find common ground in unfamiliar territory. Their collective effort is essential to make the project a successful working whole. And the tremendous, almost appalling, progress of that collective effort is proof that they can function as a joint task force in the ultimate battle for survival.

In this area of responsibility for leadership, as Professor Mathews pointed out, the law schools are seeking, and would welcome, the cooperation of professional educators in other fields—medicine, engineering,

religion and business administration. The seeking, however, does not come solely from the law schools. Dean Walter G. Muelder, of Boston University School of Theology, observed in 1948, "If the professions are to play a cooperative role in accepting concrete social responsibility, their professional educational norms will have to make contact on the basis of values and ideals which are mutually acceptable. Hence we have the challenge to examine ideal values interprofessionally."

Chancellor Heald has rightly emphasized the opportunity potential for interchange of ideas and concepts, of training techniques and experiences, so uniquely provided within the modern-day university. The trend towards its realization is an encouraging departure from the com-

partmentalization of university professional schools that has obtained in the past. Interprofessional understanding between law and medicine is not being, and will not be, adequately achieved by isolated courses such as "Forensic Medicine" taught in the medical school or "Medical Jurisprudence" taught in the law school. What is needed is a much broader base of contact and understanding between administrators, faculty members and selected students of both schools. Possibly the groundwork can be laid by a joint committee representing our respective organizations. The implementation of such a program will, I am confident, do much to assure the joint contribution of professional skills and talent to the safeguarding of America's future.

Editorials and Comments

Wanted—A New Look at Medical Manpower Problems

FOR 13 YEARS THE Armed Forces have only been requested to requisition as many doctors as they estimate they will need, and Selective Service has delivered them.

For 13 years our whole crop of young physicians has been subject to the vagaries of Selective Service requirements. Though intended to be both fixed and fair, these requirements have in some essential respects been neither. The physical qualifications for physicians, which were high at the beginning, resulted in rejecting many physicians who had volunteered and wanted to serve. Having been disqualified from service, they then made long-term plans and assumed family responsibilities, fully expecting continued civilian status. Then came the practical elimination of physical qualification requirements for physicians, and hundreds found themselves again subject to military call. On the other hand, certain precedents have been established by many local Selective Service boards which simplify the administrative problem greatly but make it quite unlikely that the board will ever go to the trouble of considering the individual case on its own merits. An example of this is the rule that no draft-eligible physician can change from one essential position to another essential position without being subject to military call. The result of this precedent has been to freeze these physicians to their present essential positions and make advancement for them impossible. At the other end of the medical education cycle we witness in at least one state an effort on the part of the state director of Selective Service to insist that a student may not take four years of liberal arts and remain deferred if the minimum requirements of the medical school he is preparing to enter only call for three years.

Is there not another side to this whole problem of medical manpower which is being too much ignored? In this cold war with the U.S.S.R., is it not more urgent and important to develop strong, full teaching staffs for our medical schools in view of their new physician and research output, than to provide plush medical service for our peacetime Armed Forces and their dependents scattered all over the globe?

A career in medical teaching and research requires long-term planning and involves an investment of eight to 12 years after high school. Since the beginning of World War II military service or the threat of it has made long-term planning of our teachers and researchers almost impossible. In this period Chauncey reports that over 3,000 graduate students in the sciences have had their careers either interrupted or terminated by military service. How long can we continue to ignore the need for medical teachers and researchers before we find ourselves

falling behind Russia in our ability both to train new physicians and to carry out important life-saving research in such fields as aerophysiology, antibiotic therapy and radiation therapy?

If Congress, after full consideration, concludes that we must have a continuation of the physician draft, it certainly is not too much to ask that the needs of medical education and research be given more attention than is now being given them.—D.F.S.

Are We Making the Most of Our Intellectual Resources?

IN THE ANNUAL REPORT of the Educational Testing Service, Henry Chauncey* makes the following challenging statement, "Less than half of those equal in ability to the average college graduate now enter college, and only about a third actually graduate from college. Even among the top 2 per cent of our high school graduates, only two-thirds are now going all the way through college. Whereas 6 or more per cent of the population are capable of acquiring a Ph.D. or an M.D., the number earning these degrees at present is less than half of 1 per cent of the population."

He presents evidence that U.S.S.R. is now training many more scientists than we are—50,000 engineers a year to our 19,000—and twice as many scientists other than engineers as we are training.

Making the situation more serious, he points out, is that the number of engineers and other scientists we graduate annually has been decreasing since 1949-50 while the reverse has been taking place in Russia. Engineering graduates in the U. S. dropped from 52,000 in 1949-50 to 19,000 in 1953-54. Graduates in chemistry dropped from approximately 11,000 in 1949-50 to less than 5,000 in 1953-54. Even worse has been the reduction in science students at the graduate level. The total of these students starting careers in science dropped from approximately 12,000 in 1951-52 to 8,000 in 1952-53, and in 1953-54 to less than 6,000. Since May 1953 it is estimated that approximately 3,000 science students have been withdrawn from graduate work to be assigned to military service.

A cabinet committee has been appointed by President Eisenhower to look into the training of scientists and engineers, and steps have been taken which will increase the annual output of engineers to 34,000 by 1957 but, according to the figures presented by Mr. Chauncey, we "have tended to be highly prodigal of all our intellectual resources."

And what are some of the means that might be used to help us make better utilization of our intellectual resources? Among the possibilities suggested by Mr. Chauncey are the following:

1. A systematic periodic testing program in every school to begin as early as the fifth or sixth grade to identify talented youth and thus make it possible to encourage them to train for specialized work and to guide them wisely in their choice of college and specialization.
2. Judicious acceleration of superior students, permitting them to graduate from high school in 11 years.
3. Increasing the efficiency of "spreading out" good teachers over larger groups of students through the use of instructional films and television.

4. Increased development of correspondence courses.
 5. Making available in every high school a full complement of high quality courses in mathematics and science.
 6. The more widespread provision of teaching assistants to relieve the overworked school teachers of their "housekeeping" chores and permit them to make better use of their specialized skills and abilities.
 7. The development of self-guidance workbooks for general use by pupils in grades 7 through 12 under supervision of their teachers.
- In view of the "tidal wave" of students known to be descending on our high schools, the marked shortage of well-qualified teachers at the high school level and the rapidly increasing need for scientists in research, in industry and in the Armed Forces, Mr. Chauncey's suggestions would seem to deserve careful consideration.

Although there are many of us who would doubt that every one who has the learning capacity to be a college graduate or a physician should necessarily be encouraged to do so, it is an important fact that should enter into all considerations of manpower problems that we are at present providing higher education for much less than half of the high school students who apparently have the capacity to take such training.

—D.F.S.

The Dean of the School

AT THE HEAD OF nearly all the medical schools in this country are officers who are called "deans;" sometimes the term is "provost," sometimes "warden," but the use of "dean" is far more general. The word "dean" in the sense of president of a department of study in a university is centuries old. Originally the word meant one having authority over 10 men, as over 10 soldiers in a camp or 10 monks in a monastery. The word is even used in the Vulgate for the rulers of 10s mentioned in the eighteenth chapter of "Exodus" and, of course, its predominant use is ecclesiastical. No one can say when it first came to be applied specifically to the head of a medical school. Just over a hundred years ago in the minutes of the committee of St. Thomas's Hospital it is stated: "The committee having been summoned for the purpose of taking into consideration the appointment of a dean . . . it was agreed that some one member of the medical school was for each year to act in the capacity and with the title of 'dean.'"

In the United States the term has come to be used as synonymous with registrar or secretary, though schools of medicine there have had some famous deans. One name in particular comes to mind, that of William H. Welch, who was the first dean, and remained for so many years, of the school of medicine at Johns Hopkins. In Britain many of the men who have become the most eminent in medicine were in their time deans of their schools, and many retained their deanship long after becoming eminent.

It is not too much to say that the quality of a school depends upon

*HENRY CHAUNCEY: "Annual Report to the Board of Trustees, 1953-54," Educational Testing Service, Princeton, N.J.

the personality and energy of the dean more than upon any other single factor. The school derives its intellectual and spiritual atmosphere from him. Professors and lecturers come and go, but the dean is always behind the scenes. He is rarely seen by the public except when he gives his report at the inaugural meeting of the session, but his hand is felt, or should be, in every development. To be successful as a dean he must have a continuing interest in the school, and not only in the school but in the university as a whole, and outside the university, in events which bear upon medical education, medical progress and medical service. He is constantly called upon to assess individual merit and capacity and make personal judgments. He must himself remain a student, although so much a senior. He must learn along with the school. He will arrange the school program so that it brings in the occasional help of part-time people as well as the whole-time staff. He will not forget the stimulus of the unexpected. He will be interested in medical education in itself, realizing, as Emerson said, that the secret of education lies in respecting the student. Above all, he must be able to appreciate the point of view of the young, to make due allowances for their follies and extravagances, to encourage their good endeavors and try to forecast their future.

These comments on an often forgotten but most important office are prompted by the fact that in assembling some of the material for this Educational Number we had occasion to write to the deans of all the medical schools. Their replies invariably showed how proud they were of their schools and how interested personally in their human product. The deans are the key-men in medical education.—Reprinted from the *British Medical Journal*, August 28, 1954; published under the title, "Nova Et Vetera."

NEWS DIGEST

Congress on Licensure

A joint program for the evaluation of graduates of foreign medical schools was approved in principle by the Federation of State Medical Boards during the 51st Annual Congress on Medical Education and Licensure, held February 5-8 at the Palmer House, Chicago. Groups participating in the congress are the Council on Medical Education and Hospitals of the American Medical Association, the Federation of State Medical Boards of the United States and the Advisory Board for Medical Specialties.

The evaluation program was discussed on the last morning of the congress, at a session devoted to education and licensure of foreign physicians. As part of a panel discussion, the program was explained in detail and the reactions of the interested organizations described. These organizations, all represented on the Cooperating Committee on Graduates of Foreign Medical Schools, are the Association of American Medical Colleges, American Medical Association, Federation of State Medical Boards and American Hospital Association.

Two major principles for graduates of foreign schools are spelled out in the program: (1) the need to present evidence of having attained the same level of professional competence as graduates of American schools, and (2) the need for devising an effective mechanism for measuring professional competence which would not substitute for nor interfere with the normal licensure procedures of the various state boards.

Identification of qualified candidates and elimination of unqualified candidates for licensure was stressed as an important part of the program

in the committee report. Also, the committee felt, a central administrative unit would have to be developed to carry out the program nationally. Such an organization would have overall responsibility for handling administrative detail as well as the task of continuous collection of information about medical education abroad, and study and analysis of results of evaluation programs.

Five phases are contained in the program recommended by the committee. These are:

1. *Application:* Foreign-trained physicians seeking licensure in the United States could apply and submit credentials to the state licensure board concerned, which would refer material to the central administrative unit, or they could apply directly to the administrative group, especially those physicians wanting further study in the U. S. as temporary students.

2. *Evaluation of Medical Credentials:* Standards for satisfactory credentials were set up in the committee report as follows: (1) a minimum of 18 years total formal education; (2) a minimum of 32 months of this time in attendance and direct study of medicine excluding any time devoted to what would be considered pre-medical study in the U. S.; (3) the latter rather than the former would be required of all physicians from any country where the minimum standards do not constitute sufficient education achievement for licensure in the U. S.; (4) evidence of satisfactory completion of the above described courses of study; (5) evidence of acceptable moral and ethical behavior.

It was suggested that some leniency could be extended to physicians classified as displaced persons, who might not be able to get their original

credentials. However, these physicians would have to satisfy the central administrative unit that minimum standards are fulfilled. American citizens who have studied abroad would have to fulfill standards and also produce evidence of at least three years of acceptable premedical study in the United States.

3. Preliminary Examination: This examination, covering the basic sciences and major clinical sciences, is intended to serve as an early screening device. Failure to pass would, it is expected, eliminate quickly and at relatively small cost those candidates grossly deficient in medical education and the reading and writing of English. It is hoped that the preliminary examination can be completed before the physician enters the U. S.

(In the committee report, it was suggested that the first three phases of the program, described above, be completed by all foreign-trained physicians before they may be considered eligible for any internship or residency appointments, provided all other legal requirements have been completed.)

4. Comprehensive Examination: This phase of the program is designed to test the foreign-trained physician intensively in all major areas of medicine. It is intended to be taken by those physicians who successfully complete the preceding phases and are seeking licensure.

5. Certification to State Medical Board: Successful completion of the first four stages would result in certification of the applicant to the state medical examining board for its consideration.

Prior to reading of the report at the congress, the program had been approved in principle by the AAMC, the AMA and the hospital association. On February 8, the Federation of State Medical Boards voted its approval, and the following day the co-operating committee met to select technical experts to advise on setting up the screening and comprehensive examinations. The committee is ex-

pected to put the program in final shape for submission to the four parent bodies in June.

Other Meetings: Two other symposiums were held during the congress. The first of these, Monday morning, February 7, was concerned with legal medicine in undergraduate medical education; the second, on Monday afternoon, on the future of the internship.

The annual subscription dinner of the federation, held Monday evening, featured an address on "The Responsibility of Licensing Authorities to Medical Education," by Dr. Donald G. Anderson, dean of the University of Rochester School of Medicine.

Federation Officers: New officers were elected by the federation during the business meeting Tuesday afternoon. Dr. M. H. Crabb, secretary of the Texas Board of Medical Examiners, was inducted as president. Elected were Dr. J. J. Combs, Raleigh, N. C., president-elect; Dr. C. J. Gaspel, Grafton, N. D., vice president; Dr. Walter H. Bierring, Des Moines, Iowa, secretary-treasurer (re-elected).

Industry and Medicine Symposium

Ways of strengthening the bonds between industry and medicine were discussed at a symposium on "The Modern Corporation and the Nation's Health," sponsored by the National Fund for Medical Education. The symposium was held at the Northwestern University Medical School on February 8.

Approximately 65 doctors and corporation executives attended the meeting, which featured a panel discussion by Dr. Robert E. Wilson, chairman of the board of Standard Oil Co.; Dr. Ward Darley, president, University of Colorado and former president of the Association; and Dr. Harold A. Vonachen, medical director, Caterpillar Tractor Co.

Dr. Darley emphasized that the human element must be of increasing importance to both industry and medicine, and that the concept of preventive medicine will become more

widely accepted in the immediate future. He called industrial plants and large business offices "near perfect laboratories" for the demonstration of effectiveness of preventive medicine.

Speaking as an industrial physician, Dr. Vonachen pointed out that any financial advantages resulting from an industrial medicine program must be regarded as by-products, since the main objective of such projects must be to make workers more productive, safe and healthy. Education, pre-employment examinations, counseling and other company health services benefit the employer, the employee and the community by reducing absenteeism, labor turnover, illness and injuries.

Dr. Wilson paid tribute to the mounting social responsibility displayed by American business, which he called *corporate citizenship*. He stated that he believed that American industry was changing from the feudal concept to one of partnership, recognizing that all its actions were woven into the pattern of community and national life. He called for broad support by industry of the medical schools, the "sources of tomorrow's doctors."

The symposium moderator was B. Clifford Graves, chairman of the board, Union Tank Car Co. Dr. Richard H. Young, dean of the Northwestern University Medical School, delivered the address of welcome.

TV Education for Doctors

More than 20,000 doctors "went to school" on February 24, when the physicians of Canada and the United States viewed the largest closed-circuit television show ever presented.

In 58 cities in the two countries doctors "attended" a symposium on the management of streptococcal infection and its complications, presented by the American Academy of General Practice and Wyeth Laboratories.

The panel consisted of: Dr. John D. Keith, associate professor of pediatrics, University of Toronto; Dr.

Burtis B. Breese, assistant professor of pediatrics, University of Rochester; Dr. Lowell A. Rantz, associate professor of medicine, Stanford University; Dr. Gene H. Stollerman, director of Irvington House; Dr. Keith Hammond, Paoli, Ind.; and Dr. Charles H. Rammelkamp Jr., professor of medicine at Western Reserve University.

New VA Medical Head

Dr. William S. Middleton, former dean of the University of Wisconsin Medical School, has been appointed chief medical director of the Veterans Administration.

Vice Adm. Joel T. Boone has retired from the position, and Dr. Middleton is to succeed him on March 1. The VA operates 172 hospitals, which care for nearly 500,000 veteran patients each year.

Internship Requirement Dropped

Upon the recommendation of the Medical Council of the Stanford University School of Medicine, the board of trustees has eliminated the year of internship as a requirement for graduation from medical school.

Under this change, the M.D. degree will be granted upon successful completion of a student's fourth year of medical studies. This is to take effect at the end of this academic year.

This new policy at Stanford marks the virtual end of the internship requirement in United States medical schools. Duke University does not withhold the medical degree until the internship is completed, but has an arrangement with its students whereby they agree to spend two years after graduation in a hospital or laboratory before entering practice.

According to the 1954 Educational Number of J.A.M.A., the almost total disappearance of the internship requirement as a prerequisite to medical school graduation has not been due to the shifting of responsibility for this requirement from the medical schools to the state licensing boards. Only 26 states, the District

of Columbia, Alaska, Canal Zone, Guam, Hawaii and Puerto Rico include such a requirement in their licensing laws. The American Medical Association believes that the abandonment of the internship requirement has occurred through realization that graduates of United States medical schools have themselves acknowledged the need for further formal training.

Records of the graduates of 1952-53 show that all but two of 6,668 had accepted internships, fellowships or assistant residencies. Not one went directly into private practice.

Catholic Hospital Convention

The 40th anniversary convention of the Catholic Hospital Association of the United States and Canada will be held at Kiel Auditorium, St. Louis, May 16-19. With a main theme of "The Road Ahead," the meetings will be concerned with medical care in the future, planning to meet changes, public relations, maintenance, hospital administration and medical social work.

Infantile Paralysis Fellowships

The National Foundation for Infantile Paralysis has announced that fellowships will be available for medical students who have a minimum of eight weeks of consecutive free time during 1955.

Three types of fellowships are offered: research in the biological and physical sciences related to medicine, physical medicine and rehabilitation and public health and preventive medicine.

The deans of the approved medical schools of the United States have been asked to nominate two candidates for each of these fellowships. Students who have completed one year in medical school are eligible for the research fellowships, and those who have completed two years for the other fellowships. Further information may be obtained from the National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N. Y.

History of Medicine Meeting

Two symposiums, one on philosophy and medicine and one on the history of hospitals, will highlight the 28th annual meeting of the American Association of the History of Medicine in Detroit, May 12-14.

The program, which will also feature exhibits and talks on the historical resources of the Detroit area, is in charge of Dr. Alfred H. Whitaker of Detroit and Dr. Erwin H. Ackerknecht, professor of the history of medicine at the University of Wisconsin Medical School.

Community Health Week

The U. S. Junior Chamber of Commerce is sponsoring a Community Health Week, March 21-27, in cooperation with the National Health Council. During that week the council will sponsor the 1955 National Health Forum on "Forecasting America's Health," at the Hotel Sheraton Astor in New York.

A suggestion kit to help Junior Chamber of Commerce chapters plan activities during Community Health Week is available from the National Health Council, 1790 Broadway, New York 19, N. Y.

Epilepsy Merger

The Epilepsy Association of New York and the Variety Club Foundation to Combat Epilepsy have announced their merger. The combined group will be known as the United Epilepsy Association.

The new officers are: Carl Marks, president; Edward L. Fabian and Robert S. Berson, vice presidents; William J. German, treasurer; and Robert L. Horn, secretary.

Executive offices will be located at 140 W. 58th St., New York 19, N. Y. Albert G. Gorson, executive director of the Variety Club Foundation, will continue in the same capacity with the new association. Harry Sands, executive director of the Epilepsy Association of New York, has been named director of professional services.

China Medical Board

According to its 1953-54 annual report, the China Medical Board's largest appropriation was \$147,500, for visiting professorships at the University of Rangoon, the school of nursing on the Island of Ponape in the Trust Territory of the Pacific Islands, the University of the Philippines and the University of Malaya.

During the same period, \$130,000 was appropriated for the fellowship program, which benefitted medical and nursing schools in Japan, Korea, Taiwan, Thailand, Malaya and Indonesia. Although only 14 new fellowships were granted during the year, 28 were active, all or in part, during this time.

Grants totalling \$64,000 were made for the purchase of books and journals for medical libraries, and \$50,000 was appropriated for equipment. The largest single grant was \$125,000, awarded conditionally to the University of Indonesia for the rehabilitation of a factory building to house the departments of pathology, parasitology and virology of the medical school.

For the third year in succession, the board appropriated \$50,000 to the Association of American Medical Colleges. A portion of the grant has been used, as in the past, to provide every foreign medical school with a gift subscription to the *Journal of Medical Education*.

Library Scholarships

The Medical Library Association has approved two scholarships of \$150 each, to be offered for the 1955 summer course on bibliography of biomedical and physical sciences at the University of Southern California School of Library Science.

Application for the scholarships, similar to those offered earlier at Columbia and Emory universities, should be made to the school prior to April 1, 1955. The course consists of selecting, evaluating and using books and specialized reference and bibliographic tools in biomedical

and scientific literature. Application blanks and further information may be obtained from the acting director, School of Library Science, University of Southern California, Los Angeles 7, Calif.

Psychology Congress

The central theme of the Second Interamerican Congress of Psychology, held at Mexico City December 14-19, 1954, was the psychology of education, from the point of view of applied psychology, social anthropology, psychotherapy and teaching.

Delegates from various Latin American countries, the United States and Canada, as well as special representatives of the American Psychological Association were invited to the congress, which was sponsored by the Department of Health, Education and Welfare.

A survey was presented on psychological and educational work done in the various countries, and the Mexican representatives illustrated their growing psychotherapeutic programs by visits to the mental hygiene clinic, the medical center for the rehabilitation of exceptional children and the psychiatric service of the Children's Hospital.

Discussions on socio-anthropological aspects of education, a symposium on education and applied psychology and one on the psychology of teaching also were presented. Observations on emotional problems of students, thought patterns in different age groups, the influence of school upon personality and psychological problems of the curriculum were given by the Latin American delegates.

The newly elected and re-elected officers are: Willard C. Olson, president; Guillermo Davila, vice president; Werner Wolff, secretary-general; and Gustave M. Gilbert, treasurer.

Two-Year Doctor Draft Extension

President Eisenhower has formally requested Congress to extend the

doctor draft for two years after July 1, as a part of the three-point military program which also calls for a four-year extension of the regular draft and creation of a new reserve program.

New Specialty Group Formed

The American College of Angiology has announced its organization as a

scientific body dedicated to the teaching, research and dissemination of knowledge concerned with the science and practice of angiology.

The college has scheduled its first annual meeting, to be held at Atlantic City on June 4, 1955. The program will emphasize the consolidation of all scientific information regarding the function of the blood vessels in both health and disease.

College Briefs

Alabama

Dr. ROBERT BERSON, formerly associate dean at Vanderbilt University School of Medicine, has been named vice president and dean of the medical college. He succeeds Dr. JAMES J. DURRETT, who has been appointed consultant on health and medical affairs to OLIVER C. CARMICHAEL, president of the college.

Albany

A bequest of \$51,300 has been received from the estate of GRACE E. LYMAN, Schenectady, N. Y., for the study of arteriosclerosis and senile dementia. Expenditure of the bequest will be under the supervision of Dr. HAROLD C. WIGGERS, dean of the college, and Dr. RICHARD T. BEEBE, professor and chairman of the department of medicine.

A long-range study of arteriosclerosis in relationship to coronary artery diseases in a population of some 2,000 middle-aged subjects who statistically are most likely to develop vascular degeneration is now being undertaken by the department of medicine.

California

The 15-floor Herbert C. Moffitt Hospital at the university medical center is expected to open this month. This 500-bed teaching hospital is nearly completed after five years of construction work.

Dr. JOSEPH C. HINSEY, director of the New York Hospital-Cornell Medical Center, will deliver the principal address at dedication ceremonies

to be conducted on March 18.

Dr. HOBART A. REIMANN has been appointed visiting professor of medicine of the University of Indonesia Faculty of Medicine at Djakarta, Java. He will act in a consulting, teaching and advisory capacity. En route to Java, Dr. Reimann will address the Medical Society of Honolulu, and will visit the medical schools in Taiwan, Formosa and in Manila.

Colorado

A \$10,000 grant from the Kellogg Foundation, augmented by \$5,000 from the state dental association and \$5,000 from the governor's emergency fund, will be used to evaluate a proposal for a dental school at the medical center.

The board of regents of the university recently approved an arrangement at the medical center to broaden teaching and research programs by the admission of selected patients who can pay for their care in Colorado General and Colorado Psychopathic hospitals. This plan calls for construction of 100 additional teaching beds at the hospitals.

Columbia

On June 30 the university's five-year old institute of administrative medicine will be merged into the school of public health. The combined unit will be known as the school of public health and administrative medicine.

The change was made on the recommendation of the faculty of medicine, "in recognition of the fact that



THE NEW WING of the Louisiana State University School of Medicine is shown above.

increasingly in the future, public health administration will include the administration of medical care plans, prepayment hospital and medical insurance and hospital administration."

Duke

The RAYMOND C. HENYAN fellowship has been renewed for 1955, and continues to be held by Dr. ROBERT NUGENT, assistant in neurosurgery, who is studying the effect of the enzyme system of intervertebral discs. The fellowship is part of a research project in neurosurgery, which is under the direction of Dr. BARNES WOODHALL.

Georgetown

Two students at the school of dentistry have been awarded research fellowships by the Public Health Service. They are RONALD B. BLACKMAN, who will do work in the field of physiology, and PASQUALE TIGANI,

whose fellowship will be used for research on the histology of the salivary glands.

Georgia

Dr. ROBERT B. DIENST has been promoted to professor of medical microbiology and public health and chairman of the department. He has been a faculty member of the medical college since 1935.

Dr. CLAUDE-STARR WRIGHT, formerly associate professor of medicine at Ohio State University Medical Center, has been appointed associate professor of medicine. He has been a member of the faculty at Ohio State University since 1944, and was the editor of the *Health Center Journal*.

Jefferson

Dr. BERNARD J. ALPERS, professor and head of the department of neurology, has completed a series of 14 weekly public service television programs for the Philadelphia Univer-

sity of the Air. The telecasts were concerned with common neurological problems.

A portrait of Dr. BALDWIN L. KEYES, professor and head of the department of psychiatry, was presented to the college by the senior class. A eulogy to Dr. Keyes noted his contributions to the community and school during his 19 years as professor at the medical college.

Louisiana

Dr. WILLIAM W. FRYE, dean of the school of medicine, made a five-day trip to Puerto Rico recently. He went as chairman of the tropical medicine and parasitology study section of the research grants division of the National Institutes of Health to inspect tropical disease research facilities for students of parasitology and tropical medicine in this country.

He was accompanied by Dr. WILLARD H. WRIGHT, director of the tropical disease laboratory, National Microbiological Institute, and Dr. KEN-

NETH ENDICOTT, technical director of the research grants division.

Dr. Frye also addressed the student body of the school of medicine of the University of Puerto Rico on "The Student's Responsibility in Medical Education."

The inauguration of live, closed circuit television for teaching demonstrations as a part of the regularly scheduled teaching program took place in the department of physiology on January 17.

The televised demonstration was used on the opening day of the current course in medical physiology. By use of a Kay-Lab camera and monitor, and two standard 21-inch receivers, it is now possible to render an area less than six inches square visible in fine detail to a class of more than 100 students.

Medical Evangelists

The Behrens Memorial Research Fund, recently created by Dr. GEORGE JOHNSTONE of Glendale, Calif., will

OPTICAL INSTRUMENTS



SINCE 1857, GÖTTINGEN, ALLIED ZONE

STANDARD STUDENT MICROSCOPE KF



Embodying the same optical and mechanical perfection of the famed Z-W Standard models, the KF series of microscopes is admirably suited for routine, heavy-duty service.

Of the highest quality and workmanship, these models are offered in a wide range of assemblies, either binocular or monocular types.

MADE IN WEST GERMANY

write for literature

CARL ZEISS, INC., 485 FIFTH AVE., NEW YORK 17, N. Y.

Guaranteed Uninterrupted Repair Service

support a soils and food analyses laboratory in the school of tropical and preventive medicine. Medically important plants used by aborigine tribes are being gathered, and will be studied from the standpoint of introducing new species and also to find plants that might prove valuable nutritionally.

Michigan

The department of epidemiology of the school of public health has received a grant of \$129,199 for the support of the fifth year of a five-year project on drugs that are effective against poliomyelitis. The grant, from the National Foundation for Infantile Paralysis, will be used by Dr. THOMAS FRANCIS JR., chairman of the department, and his associates.

More than \$78,000 has been granted to the university's faculty members for research and research equipment. The school's executive board made available \$33,981 from the Faculty Research Fund; \$8,075 from the Faculty Research-Equipment Fund, and \$14,838 from the Michigan Alumni Fund.

Miami

The new chief editor of the *Journal of Diseases of Children* is Dr. ROBERT B. LAWSON, professor and chairman of the department of pediatrics of the school of medicine. He has been a member of the editorial board of the journal since 1950.

N.Y.U.—Bellevue

Dr. JOHN W. HALL has been promoted to professor of pathology in the college of medicine. Dr. Hall joined the faculty of the college of medicine in 1938 as an instructor in pathology.

The medical center is the recipient of a gift of \$100,000 from the Rockefeller Foundation, for support of research in the field of cellular enzyme chemistry under the direction of Dr. SEVERO OCHOA, professor and chairman of the department of biochemistry.

North Carolina

The National Foundation for Infantile Paralysis has awarded a three-year grant of \$97,963 to the school of medicine for the development of a comprehensive program of teaching the concept and techniques of total patient care to undergraduate and graduate medical students and associate medical personnel.

The grant will provide for a medical director, an occupational therapist, a supervising nurse and a medical school worker in the rehabilitation program.

Ohio State

Plans have been made for a four-story extension of the north wing of the university hospital, to provide needed space for the expansion of diagnostic X-ray services and classroom facilities for medical and nursing students.

Dr. SIDNEY W. NELSON, formerly of the University of Chicago Clinics, has been appointed chairman of the department of radiology. He succeeds Dr. HUGH J. MEANS, who has recently retired.

Federal grants of \$76,185 for medical research projects at the health center and the university research foundation have been approved by the U. S. Department of Health, Education and Welfare.

Southwestern

Dr. A. JAMES GILL, formerly professor of pathology and acting dean of the medical school, has been appointed dean. He has been acting dean since Dr. GEORGE N. AAGAARD left to assume his new position as dean of the University of Washington School of Medicine.

Washington, St. Louis

In the February issue, on page 119, it was reported that a grant of \$40,000 had been received by the university from the Rockefeller Foundation. The amount should have been reported as \$400,000.

Audiovisual News

Color TV Symposium

The television committee of the Armed Forces Institute of Pathology sponsored the First Inter-Agency Symposium on the Application and Scope of Television in Medicine, on January 17-19 in the new building of the institute at the Walter Reed Army Medical Center, Washington, D. C. Key representatives from industry and civilian agencies as well as Armed Forces agencies participated.

Many areas and applications for color TV in medicine received consideration, including undergraduate medical education, graduate education, continuation education, clinical diagnosis and consultation, research and use in administrative procedures. Limited consideration was given to the possible applications of TV in *undergraduate medical teaching*. There was a general feeling that the potential here is unknown except for limited natural applications such as surgery where the TV screen can enlarge the vision of the student, and indeed, give him a better view than anyone but the surgeon himself.

Unique applications are as yet unknown or untried. The extent to which TV will be employed to aid in special teaching problems will be determined by many factors including cost, administrative planning, the curriculum itself and the acceptance or rejection by the faculty members.

Many people do not yet use the lantern slide in teaching and the proper use of TV will be similarly thwarted by wrong application or misuse. It is necessary in order to develop and maintain a satisfactory TV program in a school to have an overall administrative pattern which will be a force in building staff, sup-

porting it and offering concrete help to faculty members who will use the medium. In the last analysis, TV is another aid or tool which the teacher should use or be expected to use, only if it makes his daily work more efficient.

In *graduate education*, as in all applications, those using TV must train themselves in the use of it. Equipment cannot simply be acquired and put to use. Programming must be thoroughly planned as must the use of the lecture and other audiovisual materials. Here again a natural application is to extend the vision of the graduate student in surgery and to utilize fewer surgical cases. In this respect TV was compared favorably with films. Films are usually edited or "cut." Television offers not only a faithful reproduction of a lesion but comes closer to reality because the students "see how the surgeon gets into trouble and then gets out of it." All the important difficulties are shown, and the viewer has a more intimate contact with the surgeon than films can provide.

Its ability to telescope space makes TV practical for *continuation medical education*. Both open and closed circuit TV may be used to reach the physician in his home, office or community auditorium. Subscription TV is now being considered by the Federal Communications Commission. This will make it possible for only selected or paying viewers to see professional medical programs using open channels for transmission. In the event that a medical school or hospital is considering TV for other than closed circuit use "compatibility" must be considered in the purchase of equipment. The equipment must be capable of providing signals which can be sent open circuit and

which can be picked up on television receivers in public use.

"Just short of definitive diagnosis," was the consensus after seeing pathology slides on the screen. However, effective demonstrations of intercity consultations and conferences as well as an intracity diagnosis consultation using a large screen were provided to indicate the potential of the medium for *clinical diagnosis and consultation*. General Electric will soon be producing an electronic color microscope for direct TV pick-up and transmission. The use of television in fluoroscopy is abetted because of the increased visual acuity.

The National Institutes of Health is planning for fully integrated usage. One major use will be for the purposes of *research*, both by the laboratory scientists and the clinical researchers. As well as for the collection and the recording of research data, the cameras and receivers will be used to synthesize new ideas by providing a ready means for intercommunication among scientists. In collecting data, for example, TV is potentially valuable for cell counting and measuring, for the study of specimen changes and for x-ray work.

The National Institutes of Health also plan to use TV for administrative purposes—the centralized inspection of wards and operating rooms, for example. Consideration is also being given to the needs of formal education, including the orientation and training of younger staff, to the needs for intercommunication (via microwave) with other research agencies in the geographic area, to the needs for national public information, and to the need for patient entertainment.

Consideration was given to both the adaptability and cost of television equipment. Evidence was given that equipment is becoming more flexible and portable, and both RCA and CBS announced color cameras not much heavier than the present 16 mm. camera. CBS announced a new simplified camera chain (field sequential) with a 22-inch color tube which

will be made available for less than \$20,000.

Television is costly in terms of initial equipment costs as well as terms of maintenance, operation and programming. It requires a great deal of cautious planning by the administration and faculty (or users). Cost and energy must be carefully weighed against economy and efficiency. J.E.F.*

TV Conference

The Armed Forces TV symposium was followed, on February 5, by a one-day conference on *The Potential Use of Television in Postgraduate Medical Education*, sponsored by the Council on Medical Education and Hospitals of the American Medical Association.

Possible ways of using television for postgraduate education were exemplified by reports of actual achievements: television at medical society meetings, such as those sponsored by the Smith, Kline and French Laboratories; closed circuit postgraduate programs where the outlets or viewing points were widely removed from the points of origin, as has been done by the American Cancer Society in a series of 31 programs; open circuit postgraduate programs where the programs could be picked up by any receiver in a geographical area (the audience being selected only by the nature of the program), as done at the University of Utah College of Medicine; and the intramural use of TV is under way at the University of Kansas Medical Center.

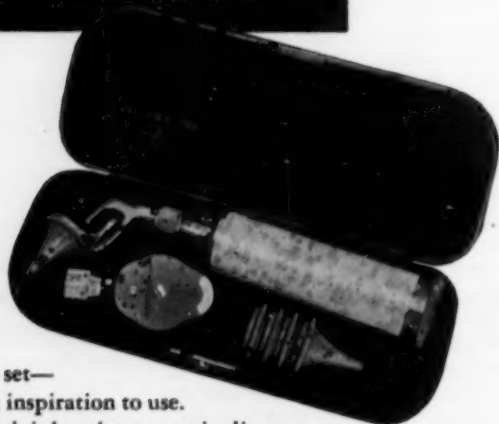
In the latter case, emphasis is being placed on the power of TV to extend or magnify the senses. Both the cameras and the receivers are used in the same room or amphitheater, and are used only to the extent that the viewers' eyes can pick up more from the TV screen than from the actual site of demonstration

*This brief report does not attempt to be inclusive or representative. Further information may be had by writing the Television Committee, Armed Forces Institute of Pathology, Washington, D. C.



Enjoy new ease
of use

NEW Bausch & Lomb INSTRUMENT SET



Your new diagnostic set—
a pleasure to own, an inspiration to use.
Completely redesigned, it has the newest in die-cast
aluminum heads, positive-locking bayonet type handle connections,
brilliant flicker-proof lighting from pre-focused lamps, and
positive thumb-tip control of light intensity. Weight, balance and
finish—all contribute to a new luxury "feel". Your supplier will
show it to you—or write: Bausch & Lomb Optical Co.,
Rochester 2, New York.

BAUSCH & LOMB



in the same room. There may be full oral communication without the use of an audio system. The University of Kansas Medical Center has likewise experimented with microwave relay where the TV picture has been beamed to the VA hospital some seven miles away. This, it was pointed out, requires more complex and costly production because, with the absence of the audience from the site of production, it is necessary to include pan shots, charts, full audio, etc., to keep the audience fully orientated.

Various types of color and black-and-white equipment were demonstrated including TV microscopes, large screen projectors and remote-control cameras. The remote-control camera may be panned, tilted and focused by one operator at a point removed from the camera.

The costs of educational TV on an annual basis, vary widely on the five and six figure scale, depending on the jobs to be done. The relative expense or economy of TV can be determined only by its effectiveness in selected teaching situations.

It was emphasized that a great deal of evaluative research must be done to determine where and how TV may be best used in postgraduate education. While it is only another of many teaching tools now available, it is definitely here to stay and its values must be critically exploited.*—J.E.F.

New CDC Film Catalogue

The Communicable Disease Center of the Public Health Service, U.S. Department of Health, Education and Welfare, released on January 1, 1955, a revised catalogue of motion pictures, filmstrips and slide sets on infectious diseases. It lists a wide range of training aids which, if not available from the state health department, may be obtained on a loan basis from the chief, Communicable Disease Center, 50 Seventh St., N.E., Atlanta 5, Ga.

*Further information may be obtained from the Council on Medical Education and Licensure of the American Medical Association.

Included in this catalogue are three short films presently on the Audio-Visual Preview Circuits for Medical Colleges.

Central Film Library

The Medical Audio-Visual Institute will begin the collection of film materials which are not at present readily available to the medical schools. The films, in most cases, will be those produced by medical schools or individuals associated with medical schools.

The need for a collection of available films appropriate for use in undergraduate medical education has often been expressed. During the past two years the Committee on Audio-visual Education has given it special consideration and, at the last meeting of the Association of American Medical Colleges, recommended the establishment of such a library.

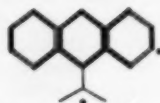
The library or film exchange is being supported by Pfizer Laboratories Division, Charles Pfizer & Co., Inc., through a grant provided for the purpose of buying prints, library equipment and supplies. The offer to cooperate with the Association was made through D. C. Riley, director of the medical student program of Pfizer Laboratories. Dr. Leo L. Leveridge, a former fellow of the Medical Audio-Visual Institute and now director of the medical film department at Pfizer, has offered his services in working out the details of the library program.

The primary aim will be to collect film materials produced by the medical schools, or by individuals associated with the schools, and make them mutually available for teaching and report. Likewise, the materials may be used for reference by schools or individuals contemplating similar production. A rental charge will be made on all films to cover obsolescence and depreciation of films as well as the costs of handling. Operation of the library will commence with the 1955 fall term.

The library will serve to make

*This bibliography has been selected
from over 1500 references*

THORAZINE†



This selected bibliography illustrates the diverse and widespread use of 'Thorazine' in the United States and throughout the world. Since 1951, world-wide interest in 'Thorazine' has developed to the point where published reports are now appearing at the rate of approximately 10 a week.

Nausea, Vomiting and Hiccups

1. Romagny, G., and Fr  d  rich: Report on the Anti-emetic Action of R.P. 4560 in the Infant*, Lyon m  d. 189:91 (Aug. 9) 1953.
2. Friend, D.G., and Cummins, J.F.: New Antiemetic Drug—Preliminary Report, J.A.M.A. 153:480 (Oct. 3) 1953.
3. Boyd, E.M.; Boyd, C.E., and Cassell, W.A.: The Antiemetic Action of Chlorpromazine Hydrochloride, Canad. M. A. J. 70:276 (Mar.) 1954.
4. Causade, L., et al.: The Action of Chlorpromazine in Medicine of Children*, Rev. m  d. Nancy, Feb. 1954.
5. Friend, D.G., and Cummins, J.F.: Use of Chlorpromazine in the Treatment of Nausea and Vomiting of Uremia, New England J. Med. 250:997 (June 10) 1954.
6. Marks, J.H.: Use of Chlorpromazine in Radiation Sickness and Nausea from Other Causes, New England J. Med. 250:999 (June 10) 1954.
7. Benaron, H.B.W.; Dorr, E.M.; Lamb, V.E.; Karp, M.; Roddick, J.W.; Gossack, L.; Johnson, R.P., and Tucker, B.E.: Chlorpromazine in the Treatment of Nausea and Vomiting of Pregnancy and Delivery, Scientific Exhibit, 103rd Annual Meeting of the A.M.A., San Francisco (June) 1954.
8. Moyer, J.H., et al.: Clinical Studies of an Anti-emetic Agent, Chlorpromazine, Am. J. M. Sc. 228:174 (Aug.) 1954.
9. Albert, S.N., and Coakley, C.S.: The Use of Chlorpromazine to Control Post-Anesthetic Vomiting, Anesth. & Analg. 33:285 (July-Aug.) 1954.
10. Isaacs, B., and Macarthur, J.G.: The Effect of Chlorpromazine on Vomiting Due to Veriloid, Glasgow M. J. 35:161 (July) 1954.
11. Stewart, B.L., and Redeker, A.G.: Emesis and Hiccough—Treatment with Chlorpromazine, California Med. 81:203 (Sept.) 1954.
12. Whitelaw, M.J.: Prevention by Chlorpromazine of the Nausea Caused by Estrogens and Estrogen-like Compounds, J. Clin. Endocrinol. & Metab. 14:795 (July) 1954.
13. Isaacs, B., and Macarthur, J.G.: Influence of Chlorpromazine and Promethazine on Vomiting Induced with Apomorphine in Man, Lancet 2:570 (Sept. 18) 1954.
14. Homburger, F., and Smithy, G.: Chlorpromazine in Patients with Nausea and Vomiting Due to Advanced Cancer, New England J. Med. 251:820 (Nov. 11) 1954.

15. Becker, B.: Chlorpromazine—A New Anti-Emetic Agent, Am. J. Ophth. 38:576 (Oct.) 1954.

Mental and Emotional Disturbances

16. Delay, J., and Deniker, P.: 38 Cases of Psychoses under Prolonged and Continuous R.P. 4560 Treatment*, Compt. rend. du Congr  s des M  decins Alienistes et Neurologistes, Luxembourg, July 21-27, 1952, pp. 7-18.
17. Escalar, G., and Balduzzi, E.: First Results Obtained with Ganglioplegics in Psychiatric Therapy*, Boll. Soc. med.-chir., Prov. Varese 5:1, 1953.
18. Rigotti, S.: Latest experiences with Largactil in Psychiatry*, Gior. di psichiat. e di neuropat. 81:211, 1953.
19. Touraine, Y.: Effect of R.P. 4560 on Deliriums with Agitation in Cranial Traumatism*, Presse m  d. 61:470 (March 28) 1953.
20. David, M.; Benda, P., and Klein, F.: The Treatment of Status Epilepticus by Chlorpromazine*, Bull. mem. Soc. m  d. H  p. de Paris 69:691 (June) 1953.
21. Staehelin, J.E., and Kielholz, P.: Largactil, A New Sympathetic Depressant in Mental Disturbances*, Schweiz. med. Wchnschr. 83:581 (June 20) 1953.
22. Massari, M.: Anxiety and Autonomic Blockage*, Minerva med. 44:231, 1953.
23. Arnold, O.H.; St. Hift, and Solms, W.: Largactil in Psychiatry*, Wien. med. Wchnschr. 103:563 (Aug. 1) 1953.
24. Delay, J., and Deniker, P.: Neuroplegics in Psychiatric Therapy*, Therapie 8:347, 1953.
25. Kolle, K., and Mikorey, M.: Artificial Hibernation in Psychiatry*, Deutsche med. Wchnschr. 78:1723 (Dec. 11) 1953.
26. Sigwald, J., and Bouttier, D.: 3-Chloro-10-(3'-dimethylaminopropyl)-phenothiazine Hydrochloride in Current Neuro-psychiatry*, Ann. m  d. Paris 54:50, 1953.
27. Lehmann, H.E., and Hanrahan, G.E.: Chlorpromazine—New Inhibiting Agent for Psychomotor Excitement and Manic States, Arch. Neurol. & Psychiat. 71:227 (Feb.) 1954.
28. Winkelman, N.W., Jr.: Chlorpromazine in the Treatment of Neuropsychiatric Disorders, J.A.M.A. 155:18 (May 1) 1954.
29. Lang, F.: A Case of Stammering Cured by Chlorpromazine in a 15 Year Old, Mentally Deficient Boy*, Ann. med.-psychol. 112:733 (May) 1954.
30. Lehmann, H.E.: Selective Inhibition of Affective Drive by Pharmacological Means, Am. J. Psychiat. 110:856 (May) 1954.

THORAZINE[†] BIBLIOGRAPHY (continued)

31. Garmany, G.; May, A.R., and Folkson, A.: The Use and Action of Chlorpromazine in Psychoneuroses, *Brit. M. J.* 2:439 (Aug. 21) 1954.
32. Lancaster, N.P., and Jones, D.H.: Chlorpromazine and Insulin in Psychiatry, *Brit. M. J.* 2:565 (Sept. 4) 1954.
33. Elkes, J., and Elkes, C.: Effect of Chlorpromazine on the Behavior of Chronically Overactive Psychotic Patients, *Brit. M. J.* 2:560 (Sept. 4) 1954.
34. Kinross-Wright, V.: Chlorpromazine—A Major Advance in Psychiatric Treatment, *Postgrad. Med.* 16:297 (Oct.) 1954.
35. Tatlow, W.F.T.; Fisher, C.M., and Dobkin, A.B.: The Clinical Effects of Chlorpromazine on Dyskinesia, *Canad. M.A.J.* 71:380 (Oct.) 1954.
36. Bower, W.H.: Chlorpromazine in Psychiatric Illness, *New England J. Med.* 251:689 (Oct. 21) 1954.
37. Leon, C.A.: The Use of 'Thorazine' as an Adjunct in the Treatment of Schizophrenia, *Bull. Tulane M. Fac.* 14:17 (Nov.) 1954.

Intractable Pain

38. Cahn, J.; Dubrasquet, M., and Melon, J.M.: The Effect of Potentialized Anesthesia and Hibernation on Experimentally Produced Myocardial Infarction*, *Anesth. et analg.* 10:89 (Feb.) 1953.
39. Lucas, J., et al.: Thorazine as an Aid in Management of Cancer Patients, *Proc. Am. A. Cancer Research* 1:30 (April) 1954.
40. Sadove, M.S., et al.: Chlorpromazine and Narcotics in the Management of Pain of Malignant Lesions, *J.A.M.A.* 155:626 (June 12) 1954.

Alcoholism

41. Sanguinetti, I., and Laricchia, R.: Six Cases of Delirium Tremens Resolved by a Method of "Neuro-autonomic Blockage" Derived from Techniques of Artificial Hibernation*, *Minerva med.* 44:1469 (Nov. 17) 1953.
42. Kammerer, T., and Ebtinger, R.: R.P. 4560 (Largactil) in the Treatment of Delirium Tremens*, *Ann. méd.-psychol.* 112:102 (Jan.) 1954.
43. Albert, S.N.; Rea, E.L.; Duverney, C.A.; Shea, J., and Fazekas, J.F.: The Use of Chlorpromazine in the Treatment of Acute Alcoholism, *Med. Ann. District of Columbia* 23:245 (May) 1954.
44. Cummins, J.F., and Friend, D.G.: Use of Chlorpromazine in Chronic Alcoholics, *Am. J. M. Sc.* 227:561 (May) 1954.

Surgery and Obstetrics

45. Laborit, H.: Ganglioplegics in Obstetrical Pathology*, *Presse méd.* 60:140 (Feb. 2) 1952.
46. Sèneque, J.; Roux, M., and Huguenard, P.: Reflections on 47 Cases of Anesthesia with Controlled Hypotension*, *Mem. Acad. de chir.* 78:333 (Mar. 19) 1952.
47. Forster, S.; Forster, E., et al.: Potentialized Anesthesia in Thoracic Surgery*, *Anesth. et analg.* 9:250 (June) 1952.
48. Peruzzo, L.: R.P. 4560, a Potentiator of Anesthesia*, *Gior. ital. anest.* 18:404 (July-Aug.) 1952.
49. Heitz, J., and Regent, M.: Potentialized Anesthesia*, *Lyon chir.* 47:875 (Oct.) 1952.
50. Laborit, H., and Jaulmes, C.: From Potentialized Anesthesia to Artificial Hibernation*, *Toulouse med.* 10:821 (Nov.) 1952.

51. Jentzer, A.: Hibernation, Potentiated Anesthesia, Post-Operative Shock Excluding Controlled Hypotension*, *Schweiz. med. Wchnschr.* 82:1215 (Nov. 22) 1952.
52. Lazorthes, G., and Campan, L.: Hibernotherapy and Neurosurgery—Reflections on 73 Cases*, *Mem. Acad. de chir.* 79:388 (May 13) 1953.
53. Smith, A., and Fairer, J.G.: Hibernation Anesthesia in Major Surgery—A Report of 36 Cases, *Brit. M. J.* 2:1247 (Dec. 5) 1953.
54. Dundee, J.W., et al.: Hypothermia with Autonomic Block in Man, *Brit. M. J.* 2:1237 (Dec. 5) 1953.
55. Déchéne, J.-P.: Largactil (R.P. 4560) in Pulmonary Surgery*, *Laval med.* 19:207 (Feb.) 1954.
56. Dobkin, A.B.; Gilbert, R.G.B., and Lamoureux, L.: Physiological Effects of Chlorpromazine, *Anaesthesia* 9:157 (July) 1954.
57. Hershenson, B.B.; Isaac, S.J., et al.: A New Sedative (Antipsychomotor) Drug Useful in Labor—Preliminary Report, *New England J. Med.* 251:216 (Aug. 5) 1954.
58. Rizzi, R.: R.P. 4560 (Largactil) as a Narcotic Potentiator*, *Der Anaesthesist* 3:58 (Feb.) 1954.
59. Martin, E.M., et al.: A Preliminary Clinical Report on Largactil (Chlorpromazine), *Bull. Acad. Med., Toronto* 27:175 (June) 1954.
60. Bierent, M.P.: Chlorpromazine in Ophthalmology*, *Presse méd.* 62:1217 (Sept. 11) 1954.
61. Golden, A.A.: Nitrous Oxide-Oxygen Potentiation—A Clinical Study, *J. Am. Osteopathic A.* 54:102 (Oct.) 1954.

Miscellaneous

62. Moyer, J.H., et al.: Laboratory and Clinical Observations on Chlorpromazine (SKF-2601-A)—Hemodynamic and Toxicological Studies, *Am. J. M. Sc.* 227:283 (Mar.) 1954.
63. Chaptal, J., et al.: Effect of Chlorpromazine (Largactil) on the Chorea Syndrome in Children*, *Presse méd.* 62:769 (May 19) 1954.
64. Robinson, K.C., and Zuck, D.: (Letter to Editor), Chlorpromazine in Status Asthmaticus, *Lancet* 2:1349 (June 26) 1954.
65. Dobkin, A.B.; Lamoureux, L., and Gilbert, R.G.B.: Conservative Therapy of Peripheral Vascular Disease and the Use of Largactil (R.P. 4560, M & B 2378 and 2601 A S.K.F.), *Treat. Serv. Bull.* 9:324 (June) 1954.
66. Chesney, W.M.: Chlorpromazine and Jaundice, *Brit. M. J.* 2:591 (Sept. 4) 1954.
67. Foster, C.A.; O'Mullane, E.J., et al.: Chlorpromazine—A Study of Its Action on the Circulation in Man, *Lancet* 2:614 (Sept. 25) 1954.
68. Geiger, H., and Finkelstein, B.A.: Largactil in the Treatment of Tuberculosis*, *Schweiz. med. Wchnschr.* 84:1063 (Sept. 11) 1954.
69. Rea, E.L.; Shea, J., and Fazekas, J.F.: Hypotensive Action of Chlorpromazine, *J.A.M.A.* 156:1249 (Nov. 27) 1954.

Chlorpromazine is known as 'Largactil' in Canada, England, France and Italy; as 'Megaphen' in Germany; as 'Amplactil' in Argentina; as 'Amplictil' in Brazil; and as 'Hibernal' in Sweden.

*Translation

†Trademark for S.K.F.'s brand of chlorpromazine.

Smith, Kline & French Laboratories
Philadelphia 1

available materials which are too expensive to be produced or purchased by all schools.

Medical TV Handbook

"Television in Medical Education," by Dr. Frank Warren, audiovisual coordinator at New York University Post-Graduate Medical School, was published by the American Medical Association last month. Profusely illustrated, the 100-page handbook presents the fundamentals of television in medical education. Subject matter ranges from the mechanics to production problems.

Medical teachers and physicians interested in the use of TV will find this manual useful for orientation in a field where the techniques and language are still new and unfamiliar. The book may be ordered from the AMA Council on Medical Education and Hospitals or the Bureau of Health Education.

Summaries of Film Reviews

The Injured Can't Wait

16 min., b&w., sd., 16 mm., 1953.

Introductory scenes of A-blast destruction precede views of first aid teams in action. With the all-clear signal, personnel and supplies move to proper areas according to a charted plan. When the hospital is full, a schoolhouse is readied for the injured. The aid station team comprises control, communication, transport and supply. The relationships of primary and secondary aid stations to hospitals and holding stations is diagrammed. A litter case is picked up and sent along the line; an ambulatory case is handled, and the role of holding stations is specified. In a summary, the flow of patients is shown by means of specific cases.

This organizational film presents the principles of emergency handling of the injured in clear, didactic but dramatic terms. Semi-realistic in its film approach, the production describes the organizational pattern of medical civil defense in competent and straightforward fashion.

For students of first aid, medical and non-medical, the pattern of organization for, and rationale of, care of the wounded will be clear. The film is designed as an introduction to the subject, to be fortified by other materials given by a well-trained CD teacher. D.S.R. and MAVI Panel, July 1954.

Audience: Students of first aid in civil defense.

Production Data: Sponsor: New York State Department of Health, Offices of Health Education and Civil Defenses; **Production Supervision:** Film Counselors, Inc.; **Direction:** Edwin T. Kasper, Filmways, Inc.; **Technical Direction:** Morris Schaefer.

Distribution: Office of Health Education, N. Y. State Dept. of Health, 16 Dove St., Albany, N. Y., **Loan or Sale.**

There's a Way

37 min., sd., b&w., 16 mm., 1954.

A Midlands city has a hospital with many patients requiring rehabilitation, but possesses only very limited personnel and facilities. Dr. Adamson, the physiatrist, and Dr. McIntyre, an orthopedist, present the needs to the hospital board and a rehabilitation department is finally authorized, financed and put into operation. Groups of patients with miscellaneous disabilities are shown undergoing physical therapy. An industrial accident case provides the basis for the beginning of an occupational therapy service. The overall objective of sending patients back to a normal life is concluded with social work and job placement.

This dramatized British story of how a general hospital put into operation a PT-OT service is designed to inspire emulation. Administration, theory and practice in PT are sufficiently different to promote an interesting lesson in contrasts. In the U.S. the British narration and dialogue are often difficult to understand fully. Production skills are professional in the documentary tradition, even though the meaning of the work being accomplished is very superficial.

For American audiences concerned with physical and occupational therapy, the film at best is a lesson in British ideas and ways, but is scarcely useful for its prime objective of selling PT and OT to the public in this country. D.S.R. with KUMC Panel, January 1954.

Audience: Students of physical and occupational therapy.

Production Data: Producer: Crown Film Unit, London.

Distribution: (In U. S.) British Information Services, 30 Rockefeller Plaza, New York 20, N. Y., **Loan.**

Book Reviews

Basic Anatomy

C. A. G. Mitchell and E. L. Patterson. The Williams & Wilkins Co., Baltimore, 1964. 392 pp. with index.

The title of this book suggests that the authors have attempted to do for anatomy what the creators of basic English did for the language. There is no attempt to cover thoroughly in the limited pages all of anatomy, for though the fields of embryology, histology, neuroanatomy and gross anatomy are treated, the material is generally introductory. The details given are planned to increase understanding of principles of structure and function rather than to form an encyclopedic reference volume. The work is recognizable as derived from introductory lectures for medical and dental students.

The style of writing is clear, understandable and attractive and the range of experience of the authors in various fields is impressive. Packed into the 13 pages of Chapter 1, "A Brief History of Anatomy," is much that stirs the imagination and associative memories of the reader. The same thing may be said for the section on comparative anatomy and embryology. It is to be hoped that the student reading it will be stimulated to further reading in the fields.

If the implication in the preface that "those with no preliminary biological training should be able to follow the story" is true, one could raise the question whether those with considerable biological training would get more than general principles. And it is legitimate to ask, therefore, whether such an introductory treatment might not be more valuable to advanced students trained in nonbiological fields of natural science to absorb facts and see their relative value.

The illustrations of the text are numerous, well reproduced and well chosen except for an occasional apparent attempt at "tabloid" sensationalism. The greater emphasis on dental details suggests that the book is primarily for dental classes, but it is obviously too elementary for any student in the fields of medical science to use as anything

other than a pleasant introduction to several fields as, for example, the dozen pages devoted to endocrine glands, anatomy, gross and microscopic, and functional discussions. A glossary and index make the book more usable. The book might find its best usefulness in the fields auxiliary to medicine.

Sam L. Clark, Vanderbilt

Plague (WHO Monograph Series No. 22)

R. Pollitzer, M.D. World Health Organization, Geneva, 1954. 619 pp. with annexes. \$10.

This book is a monograph prepared by a scholar who has devoted a lifetime primarily to plague. The author has attempted to set down briefly and clearly all that we know about this disease today. He has reviewed all of the literature for the period 1894 to 1953. The discussions represent the reports from many laboratories, the experiences of those in the seemingly endless warfare against rats and fleas, and the conclusions of physicians from their contacts with patients and methods of treatment.

The author takes up in order the parts that together make up the total picture. He is careful to show how we know, or why we think as we do, and how the knowledge has grown. In doing this he anticipates and answers innumerable questions that must occur to the reader, hence the more than 2,000 references involving earlier workers like Yersin, Kitasato, Hoffkins, Simond and others from 1894 to 1900, and later workers for every year to 1953.

Not infrequently earlier suppositions proved wrong or inadequate, or the workers were surprised at their findings. Where findings or conclusions are in conflict both sides are presented and the matter is left for further investigations. At no time is there a suggestion that the last word has been spoken. The reader cannot fail to realize how great was the undertaking attempted by the author, nor how well he has accomplished it. Nor can he fail to appreciate the thought and care that went into every step of the work, or the encouraging extent of our present knowledge.

There seems to have been no change in tempo of interest or effort, but as pointed out in the preface, the greatest progress seems to have been made near the beginning and close of the 60-year period. By the end of the second decade, or about 1914, the work of the early investigators had gone a long way in clearing up the nature of the disease, its causative agent and the role of rats and fleas. A firm foundation had been laid for both further studies and a program of control and prevention. The second milestone appears at the beginning of the last decade, or about 10 years ago. The use of more effective insecticides, D.D.T., and the use in treatment of sulfonamides and antibiotics, beginning about that time, "have rendered plague both a normally curable and a thoroughly controllable disease."

Today we scarcely fear a pandemic, or even a great epidemic. But plague is still a serious problem in many parts of the world. The status quo requires eternal vigilance, the maintenance at great expense of an extensive organization with provisions for hospitalization and control and prevention, and with the ability to expand and to act promptly. Other discouraging factors are the great backlog or reservoirs of infection in wild rodents, and the comparatively unfavorable living conditions of much of the

populations where the disease still exists or is likely to appear.

The book would seem to be a must for any one engaged in plague work, research, control and prevention. It has the same importance for those in public health work and in many of the biological and medical sciences as well as for clinicians. It should be in every medical library.

H. E. French, *North Dakota*

Books and Pamphlets Received

(As space permits, those with the greatest interest to our readers will be reviewed)

Biochemical Investigations in Diagnosis and Treatment

John D. N. Nabarro, M.D. Little, Brown & Co., Boston, 1955. 258 pp. with index \$6.

Animal Agents and Vectors of Human Disease

Ernest Carroll Faust, Ph.D. Lea & Febiger, Philadelphia, 1955. 623 pp. with index. \$9.75.

The Physiological Basis of Medical Practice, 6th edition

Charles Herbert Best, M.D. and Norman Burke Taylor, M.D. The Williams & Wilkins Co., Baltimore, 1955. 1224 pp. with index. \$12.

Abstracts and Excerpts

Witt, Norman F. **Problems in Premedical Education.** "The Scalpel," Vol. XXIV, No. 4, Summer 1954.

The problems in premedical education are not as numerous as they were, but I believe we can say that they are still with us. Before I give my observations on this subject I think we should consider what we mean by a liberal arts college and what we aim to do in the so-called premedical education.

The objectives of the liberal arts college have changed, and wisely so, in order to meet the needs of the times. The liberal arts colleges have revised their curricula and have included the sciences and other subjects in order that they could prepare students for professional schools such as medicine, dentistry, business, veterinary medicine, law and, in some cases, pharmacy.

The objectives of a liberal arts college and the curricula have been reviewed many times and faculties have worked long hours over terminologies. Certainly we would say we attend college to receive an education and we might ask ourselves, "What is an education?" Sir Richard Livingston has said that, "It should prepare us, either by a general or vocational training, to earn our bread; it should give us some understanding of the universe and men; and it should help us to become fully developed human beings."

The liberal arts college has as one of its responsibilities the preparation of the student for medical school. If a student fails in medical school, the responsibility must be shared by the liberal arts college. Let us return now to our term premedical education. There are con-

tradictory schools of thought as to the use of this term. One would have to admit that since it precedes the study of medicine, the term premedical might be correct.

However, some of us would like to think that this term is used only to designate students for counseling purposes and that we do not use it to cause them to be segregated or set off in a group by themselves.

Much has been said and written as to what a curriculum for the preparation for medical school should encompass. In some institutions there is set up a rather rigid curriculum of courses and all students are trained in the same way, without much choice of electives. There are many arguments against such a program if we are to believe what we hear about a broad liberal education. All students should not be trained in exactly the same manner because there are many ramifications to the practice of medicine.

Why do we have such a wide variety of ways in which to prepare for medicine? Some of this confusion might result from the fact that the present medical school admission requirements are attracting to our liberal arts colleges a vocationally oriented group of students, many of whom have very little interest in the items in the undergraduate program that, as far as they can see, have little or no bearing or make little or no contribution to the occupational objectives.

I have often remarked that we try to produce in a physician a man who is a scientist, a technician and a humanist. With our present-day curricula and assuming a moderate amount of intelligence on the part of the individual, we can produce a scientist and a technician. However, to produce a humanist creates our greatest problem. We should strive to reach a balance between the sciences and the broad liberal education and not swing the pendulum too far to one side as was done in the case of the sciences.

In our effort to produce the kind of an individual that we believe will make a good physician we are confused somewhat by the requirements set forth for admission to medical school. All medical schools list a minimum of subjects required and then give a list of suggested subjects. It is the feeling of many that this list of suggested subjects should be deleted, as many premedical advisers and premedical students feel that this means these subjects should be taken. Quite often the suggested subjects are

science courses which result in the student taking a preponderance of science courses at the expense of electives in the fields of the humanities and the social sciences.

Another problem which concerns us is whether a student should spend three or four years in his premedical training. I believe that we should be interested in the student as an individual, and that we should not arbitrarily set a time of three or four years.

The appeal of medicine to young students is not surpassed by that of any other profession. The reasons for this appeal are many and vary with individuals. These young people come from every status of American society without any regard to color, creed, national origins or socio-economic status, provided, however, that these students have the required aptitude, character and intelligence.

The advisor must be well-informed on the exact qualifications, geographical limitations and other specifics of admission. He must be interested in the students and in their problems and he must be willing to take the time to do a good job.

Just Published

MEDICAL CARE FOR TOMORROW

**By Michael M. Davis,
Chairman, Executive Committee
Committee for the Nation's Health, Inc.**

• A definitive statement of public policy and private measures for medical services to the American people, now and in the years ahead.

• "No more important book on medical economics and administration, inclusive of the great problems of the adequacy of medical care and distribution, has been written."—SEYMOUR HARRIS, Professor of Economics, Graduate School of Public Administration, Harvard University.

\$4.50 at your bookstore or from

HARPER & BROTHERS, 49 E. 33rd St., N. Y. 16

Gray's Anatomy

By **HENRY GRAY, F.R.S.**

Edited by **CHARLES MAYO GOSS, M.D.**

Managing Editor of the *Anatomical Record*; Professor of Anatomy,
Louisiana State University School of Medicine, New Orleans, Louisiana

NEW 26th EDITION. The great success of Gray's Anatomy of the Human Body lies in its effectiveness as a text for students and in its practical value to physicians and surgeons. It is unequalled in arrangement, authority, and accuracy. In the new 26th edition the sequence of presentation corresponds more closely to the modern approach to the study of anatomy. Many chapters have been rewritten or revised, and numerous illustrations have been added. Legends of all illustrations are in large, easy to read type.

New 26th Edition. 1480 Pages, 7" x 10". 1202 Illus., Mostly in Color. \$16.00

Ormsby and Montgomery— Diseases of the Skin

By **OLIVER S. ORMSBY, M.D.**

Late Rush Professor of Dermatology, University of Illinois, Chicago

and **HAMILTON MONTGOMERY, M.D., M.S.**

Professor of Dermatology and Syphilology, Mayo Foundation for Medical
Education and Research, Graduate School, University of Minnesota, Rochester

NEW 8th EDITION. Long considered one of the finest books ever written on diagnosis and treatment of diseases of the skin, this outstanding volume is now in a revised, enlarged and up to date new edition. Clinical conditions of the skin are described clearly. Emphasis is on the relation of cutaneous manifestations to systemic disease and on neuropsychiatric findings as they relate to treatment of certain dermatoses. Of the 750 illustrations, 117 are new.

New 8th Edition. 1503 Pages. 750 Illus. on 666 Figs. 18 in Color on 11 Plates. \$22.00

Fleming, D'Alonzo and Zapp— Modern Occupational Medicine

Edited by **A. J. FLEMING, M.Sc., M.D.**

Assistant Medical Director, E. I. du Pont de Nemours & Company

and **C. A. D'ALONZO, M.D., F.A.C.P.**

Special Assistant, Medical Division, E. I. du Pont de Nemours & Company

Associate Editor: J. A. ZAPP, Ph.D.

Director, Haskell Laboratory for Toxicology and Industrial
Medicine, E. I. du Pont de Nemours & Company

NEW BOOK. Adequate health care is the theme throughout this book. It has been compiled by 20 Du Pont medical and health authorities for everyone interested in the prevention and correction of occupational health hazards. The main part of the text discusses problems met daily in the practice of occupational medicine. Of special interest is the section on effects, signs, symptoms and treatment of frequently encountered acute poisonings.

New. 414 Pages. 44 Illustrations, 2 in Color & 1 Plate. 32 Tables. \$10.00

Washington
Square

LEA & FEBIGER

Philadelphia 6
Pennsylvania

The liberal arts college and thus the premedical advisor have the important responsibility of trying to prevent students from cherishing inappropriate ambitions too long. Efforts should be made early in the student's academic career to determine whether he is suited for the study of medicine.

I believe that one's life is made up of three stages: preparation, meditation and dedication. Each student must exert his best efforts to do as well as he can. He should not be satisfied with anything but the best he can do.

Nock, Samuel A. *For an Era of the Unanticipated*. "American Association of University Professors Bulletin," Vol. 40, No. 2, Summer 1954.

However it may look in retrospect, successfully meeting an unanticipated situation requires abilities neither common nor innate. Some of us can remember a time when men and women could plan their careers and lives, look forward to attainment of their ambitions and develop the means to such attainment. More of us can remember when it was possible to develop national policies and follow through to the ends desired. Most of us can remember when people fighting a war could at least fight their enemies, and not other people in places and under conditions that made any sort of conclusion of war impossible.

We can be reasonably sure of only one thing, which is that what turns up may not be what we planned on, or worked for, or imagined. One result is that we are scared, but are not quite sure of what. Scared people do not, as a rule, meet the unanticipated with such a command of their wits as is necessary to get along in spite of what turns up.

We overlook the fact that a life like ours is what human beings have put up with most of the time. The eras of peace, complacency and self-sufficiency such as the one in which our grandfathers lived and our fathers were brought up, have been few and brief in the world's history.

Meeting the unanticipated successfully requires at least three forms of competence: perspicacity, judgment and decision. Few men are born with them. They are the result of development, which is the result of education. Yet although the elementary ability to see what we are looking at, to perceive what is before us, is essential to understanding it, we not only make little effort to develop perspicacity in our young people, but we actually hinder them from acquiring such an ability.

Self-deception is a pleasant activity, so long as one does not have to pay the penalty. For generations Americans have been able to delude themselves, in one way or another, leaving it to their descendants to face the facts; but now we who do the wishful thinking are likely to be the ones to be penalized. Why we should wish to deceive ourselves is a long and intricate story; for the moment we need only observe that we have not been perspicacious.

One of the ways of inculcating perspicacity, a way that has had long and severe testing and has not been found wanting, is the study of the liberal arts. There is the record of those who had eyes and used them, who had ears and heard.

But judgment requires more than experience, although experience is essential. It requires also detachment. Detachment may be of two kinds, emotional and intellectual, which are apt to be confused. Emotional detachment is an attitude of carelessness, of lack of concern with human affairs, of selfishness or conceit or pride. Intellectual detachment may be the virtue of one who is devoted to what he must judge, of one who will live and die for his cause—but who will not be perverted in his estimation of the situation.

The liberal arts make us acquainted with those who were intellectually detached. In history we see them in action; in literature, in creative contemplation. We also see that our time is not unusual in regarding them with scorn and suspicion: we know what Jerusalem did to the prophets. It is always hard to act on the basis of considered conviction—much harder than to act on unconsidered conviction. The enthusiast will act in his enthusiasm, sometimes without thought of consequences.

The man who has seen what his situation is, however, and has considered it carefully, detaching himself and his feelings from his judgment, knows that if he acts, certain consequences are likely to ensue. Yet there are many ways of doing things, more than we are apt to guess by ourselves. Here again the study of the liberal arts will guide those who need to know how to establish the results of their judgment.

The liberal arts do not constitute the only way to an understanding of mankind and to experience that will clear the vision, sharpen the judgment, and determine action; but they are the most generally available way.

*A New Publication of the
American Public Health Association*

HEALTH SUPERVISION OF YOUNG CHILDREN

A Guide for Practicing Physicians and Child Health Conference Personnel

Prepared and authorized for publication by the Committee on Child Health, American Public Health Association. Endorsed by the American Academy of Pediatrics, the U. S. Children's Bureau, and the National League for Nursing.

180 PAGES, 6 1/2 x 9 1/2, \$2.00

Write for prices on 25 or more

Five years in preparation, "Health Supervision of Young Children" is a full presentation of new concepts, methods and practices in child health care. It covers the physical and psychological aspects of health supervision with particular attention to the interrelationship between the two, and brings together much new information about the health needs of children not yet easily available elsewhere.

The guide is divided into two parts. Part I tells what health supervision is, wherever it is carried on, and is for all physicians, nurses and other professional persons responsible for the health of children. Part II shows how health

supervision is carried out in the child health conference. This part will be of special interest to all personnel of child health conferences.

"Health Supervision of Young Children" has been developed with the active participation of many prominent professional workers in medicine, public health, and child welfare. It is a project of the APHA's Committee on Child Health, Samuel M. Wishik, M.D., chairman, in association with review committees of the American Academy of Pediatrics and the Children's Bureau. The material was written by Nina Ridenour, Ph.D.

ORDER FROM THE BOOK SERVICE

AMERICAN PUBLIC HEALTH ASSOCIATION
1790 BROADWAY NEW YORK 19, N. Y.

The Personnel Exchange

Faculty Vacancies

• **RESEARCH FELLOW IN METABOLISM:** Newly formed metabolic section of research institute desires young, relatively untrained clinical investigator. Department is oriented toward water and electrolyte metabolism and nutritional problems. Facilities include plans for metabolic balance study unit, animals, laboratories, university teaching association, strong basic science departments. Intramural stipend. Address: V-25.

• **PHARMACOLOGY:** The Creighton University School of Medicine has an opening for an instructor in the department of physiology and pharmacology. Ph.D. or M.D. degree required, with some training and teaching experience in the field of pharmacology preferred. Teaching duties begin Feb. 1, 1955, with about one half time available for research. Position available immediately. Address: Dr. J. Raymond Johnson, Director, Dept. of Physiology and Pharmacology, Creighton University School of Medicine, Omaha 2, Neb.

• **PHYSIOLOGIST:** The department of physiology of the University of Texas Medical Branch has an opening for an instructor or an assistant professor to take charge of the teaching of neurophysiology. Requirements are M.D. or Ph.D. with training and research experience in the field. About one-half of the year will be available for research on problems of the candidate's choice. Address: M. Mason Guest, department of physiology, University of Texas Medical Branch, Galveston, Tex.

• **MICROBIOLOGY:** Faculty position available in Eastern medical school with time and facilities for research in new laboratories. Rank and salary depend on experience and training. Address: V-26.

• **Residencies in internal medicine** available immediately and July 1, in new hospital for neoplastic diseases. Active investigative programs in chemotherapy, metabolism and hematology. Strong basic science departments. Affiliation with medical school; teach medical students. Salary \$3300--3800. New York state. Address: V-27.

• **Department of Pathology, University of Texas M.D. Anderson hospital and tumor institute,** has openings for two or three senior pathologists from assistant to an associate level. Half of the individual's time can be spent on research and investigative work, the balance taken up with the usual service responsibility connected with a university teaching hospital. Address: William O. Russell, M.D., Pathologist-in-chief.

• **RESEARCH LEADER:** To handle problems in physiology, pharmacology and toxicology. Opportunity to develop new areas of research. Considerable research experience required. Willingness to cooperate with other sections essential. Address: Personnel Department, Armour Research Foundation, Technology Center, 1 W. 35th St., Chicago 16, Ill.

• **PATHOLOGISTS:** Positions available immediately for two assistant pathologists and one associate pathologist in a university teaching and cancer research center with 310 bed clinical facilities. Salary dependent upon qualifications. Address: V-28.

cal facilities. Salary dependent upon qualifications. Address: V-28.

• **RESEARCH ASSOCIATES:** Postgraduate (M.D. or Ph.D.) cardiovascular research and training program, supported by National Heart Institute and American Heart Association offered by departments of physiology and pharmacology, Medical College of Georgia. Stipend for one year program, starting July 1, 1955, is \$3400 plus \$350 for each dependent. Write Dr. W. F. Hamilton or Dr. R. P. Ahlquist, Medical College of Georgia, Augusta, Ga.

• **CHIEF CLINICAL PSYCHOLOGIST:** Ph.D. Large mental hospital, island of American dependency. While considered tropical climate is extremely mild. American tourist center. Excellent educational facilities including university. \$7000. Woodward Medical Bureau, 185 N. Wabash ave., Chicago, Ill.

• **DIRECTOR OF RESEARCH:** Full charge. Should be M.D. able direct research and clinical program of leading pharmaceutical company, manufacturers of ethical drugs including hormones, diuretic antibacterials, sulphur preparations and antacids. Duties will require visits on basic research problems to Switzerland and Germany twice yearly. Woodward Medical Bureau, 185 N. Wabash Ave., Chicago, Ill.

• **PHYSIOLOGIST:** Opening for instructor or assistant professor, Ph.D. or M.D. with research training. Preference for someone with medical school teaching experience and interests. Two-thirds of calendar year free for independent research. Address: Clarence A. Maske, Department of Physiology, University of Colorado School of Medicine, 4300 E. 9th Ave., Denver 20, Colo.

• **ANESTHESIOLOGY RESEARCH FELLOWSHIP:** Albany Medical College, for July 1, 1955. Training in cardio-pulmonary function laboratory, anesthesia research laboratory and experimental surgery laboratory. Subsidy of \$3,000 to \$3,600 depending on marital status. Address: J. Gerard Converse, M.D., Professor of Anesthesiology, Albany Medical College, Albany, N. Y., before April 15, 1955.



WOODWARD
Medical Personnel Bureau
FORMERLY REAGAN
3rd floor • 185 N. WABASH • CHICAGO
• • • DR. WOODWARD, DIRECTOR

Founders of the counseling service to the medical profession, serving medicine with distinction over half a century.

ACADEMIC OPPORTUNITIES IN MEDICINE, SURGERY AND THE SCIENCES. PLEASE SEND FOR OUR ANALYSIS FORM SO WE MAY PREPARE AN INDIVIDUAL SURVEY FOR YOU.

TO THOSE SEEKING DOCTORS OF MEDICINE AND SCIENTISTS FOR ACADEMIC POSTS PLEASE WRITE US FOR RECOMMENDATIONS OF WELL QUALIFIED MEN AND WOMEN.

STRICTLY CONFIDENTIAL

To aid in solution of the problem of faculty vacancies, MEDICAL EDUCATION will list persons and positions available, as a free service. The school department or person may have the option of being identified in these columns or of being assigned a key number for each position listed. Mail addressed to key numbers will be forwarded to the person or department listing the request.

Information for these columns should reach the Personnel Exchange Editor, 185 N. Wabash Ave., Chicago 1, Ill., not later than the 10th of the month which precedes the month in which the listings will appear.

• **ANATOMIST:** Teaching duties mainly in microscopic anatomy. Prefer someone whose research interests are in histology or embryology. Salary and rank dependent on experience and qualifications. University Medical School, Pacific West Coast area. Address: V-29.

Personnel Available

• **PHYSIOLOGIST:** Ph.D., male, 37, family. Experience in research and teaching mammalian physiology. Research emphasis in neurophysiology and visual physiology. Experienced in using electrophysiological techniques. Acquainted with problems and techniques of electromyography, especially as applied to human studies. Publications. References. Desires opportunity for research with or without teaching responsibilities. Available. Address: A-127.

• **PHYSIOLOGIST:** Ph.D., 35, married. Presently associate professor of medical physiology in large medical school. Fifteen years experience in teaching and research, the last seven in medical schools. Many publications in fields of nutrition, respiration, endocrinology, steroids, radioisotopes. Experienced in organization, administration, teaching. Considerable clinical experience. Will consider any location. Salary above \$7000. Address: A-129.

• **PHYSIOLOGIST:** M.D., Ph.D., 35, family. Training requirements for boards in internal medicine completed. Teaching and research experience. Army service will be terminated end of 1954. Desires full-time academic position where basic science and clinical interests in teaching and research may be fulfilled. Address: A-128.

• **PHYSIOLOGIST:** Ph.D., 38, broad biological training. Wide experience in teaching and research. Desires teaching position in Chicago area with opportunity for research. Available September 1. Interest and experience in connective tissue permeability and biological effects of x-rays. Married. Address: A-130.

• **PHYSICAL CHEMIST—BIOCHEMIST:** Woman, single, 30. Ph.D., 1949. Major in physical chemistry, minor in biochemistry. Two years experience in clinical research on total body water and kinetics of water transfer. Desires teaching with some research. Publications, references. Address: A-131.

• **ANATOMIST:** Ph.D., 27, married. Desires permanent teaching-research position in medical school. Thoroughly trained in all phases of anatomy, especially neuroanatomy with minor field in pathology. Four years' teaching experience in gross anatomy and neuroanatomy. Extensive research experience including publications. Member Sigma Xi. References. Address: A-134.

• **THORACIC AND GENERAL SURGEON,** 48, Certified by board in surgery and in thoracic surgery. Member of numerous national societies and

author of many scientific publications. Has served as chief of the surgical service in large teaching hospitals. Long experience in teaching and training programs; some in research. Desires teaching appointment in class A medical school, preferably full time. Primary interest in thoracic surgery. Address: A-135.

• **BIOCHEMIST:** Ph.D., presently holds teaching and research position in a medical school. Desires position with teaching and research responsibilities. Address: A-137.

• **PUBLIC RELATIONS DIRECTOR:** 30 years experience in handling a variety of business and college public relations, specialist in interpreting scientific and technical topics, interested in connection with medical school or medical foundation where his energies and talents might be concentrated to better advantage. Address: A-139.

• **PEDIATRICIAN:** Board eligible. Three years clinical training in Eastern university centers. Some research experience. Desires academic position allowing part time practice. Small medical school preferred. Address: A-140.

• **BASIC RESEARCH:** Man, 39, veteran. Ph.D. Chemistry. M.D. June 1955. Experienced in teaching graduate and medical biochemistry, organic synthesis, tracer work, intermediary metabolism and medical therapy using radioactive isotopes. Publications. Address: A-141.

• **ANATOMIST:** Age 33, minor in physiology, requirements for Ph.D. completed except for some thesis work. Interested in teaching gross anatomy of physiology with time for research. Experience: assistant professor of biology, research in mammalian ecology, endocrinology, and circulation. Publications. Address: A-143.

• **SURGERY:** Residency for one year in general surgery sought by immigrant in Louisville, Ky. Married to an American. Internship expired Nov. 1954. Available Jan. 1, 1955. Prefer Louisville or vicinity. Address: A-144.

• **BACTERIOLOGIST:** Male, Ph. D., Harvard. Extensive teaching and research experience in medical bacteriology, general microbiology and applied immunology. Direct research: immunizing agents for bacterial and viral diseases; chemotherapy of virus infections, tuberculosis and malignancies; blood plasma fractionation and plasma volume expanders.

Closely associated with clinical evaluation of new chemotherapeutic agents, drugs and diagnostic aids. Member Sigma Xi and other scientific societies. Publications. Desires permanent teaching and/or research position, with or without administrative responsibilities. Address: A-145.

• **BIOCHEMIST:** M.D., Ph.D. Married, veteran. Sixteen years extensive experience in clinical biochemistry, research in biochemistry and endocrinology and in teaching.



For **HARD, DRY STOOLS OF CONSTIPATED BABIES**

Borchardt

MALT SOUP *Extract**

A gentle laxative modifier of milk. One or two table-
spoonfuls in the day's formula—or in water for breast
fed babies—produce a marked change in the stool.

SAVES DOCTOR'S TIME, TOO!

Fewer phone calls from anxious mothers. Malt Soup
Extract is merely added to the formula. Prompt results.
Easy for mother to prepare and administer. Does not
upset the baby.

*Specially processed non-diatatic
malt extract neutralized with po-
tassium carbonate. In 8 oz. and 16
oz. bottles.

**Send for Samples
and Literature**

BORCHERDT MALT EXTRACT CO.

217 N. Wolcott Ave.

Chicago 12, Ill.



**GOOD FOR
GRANDMA, TOO!**

Borchardt

MALT SOUP *Extract**

A New Dietary Management for CONSTIPATED ELDERLY

A bowel content modifier that softens dry, hard stools by
dietary means without side effects.* Acts by promoting an
abundant fermentative bacteria in the colon, thus producing
soft, easily evacuated stools. Retards growth of putrefactive
organisms. By maintaining a favorable intestinal flora, Malt
Soup Extract provides corrective therapy for the colon, too!

DOSE: 2 tablespoonfuls b.i.d. until stools are soft
(may take several days), then 1 or 2 Tbs. at bedtime.

*Specially processed malt extract
neutralized with potassium carb-
onate. In 8 oz. and 16 oz. bottles.

I. Cass, L. J. and Frederik, W. S.: Malt
Soup Extract as a Bowel Content
Modifier in Geriatric Constipation.
Journal-Lancet, 73:414 (Oct.) 1953.

**Send for
Sample**

BORCHERDT MALT EXTRACT CO.

217 N. Wolcott Ave.

Chicago 12, Ill.

Publications. Extensive experience in medical editorial work.

Listed in American Men of Science and Who's Who in Medicine. Excellent references. Boggled down by administrative work and poor financial return. Wishes changes and desires teaching and/or hospital laboratory position with opportunities for research. Will consider editorial offers. Address: A-146.

• **PHYSIOLOGIST:** Ph.D. Now assistant professor Midwest medical school. Broad training physiology and physics. Fellowships. Teaching experience in medical and dental physiology, graduate biophysics. Active research on circulation in perfused organs under own grant; and aid in group studies in environmental stress. Extended experience in aviation physiology and applied physics, including many designs. Desires position in East with active teaching assignments, independence of research, chance to develop biophysics program for medical and graduate curriculum. Available Spring 1955. Address: A-147.

• **PHYSIOLOGIST:** 30, family. Ph.D. June 1955. Research and teaching experience. Publications. Knowledge of biochemistry. Medical and zoological background in general and in mammalian physiology. Desires research opportunity with or without teaching. Special interests in cell metabolism and atherogenesis. Address: A-148.

• **PHARMACOLOGIST-PHYSIOLOGIST:** 31, veteran. Ph.D. Physiology and pharmacology, M.D. June 1955. Experienced in teaching pharmacology in university medical school. Broad training in classic mammalian pharmacologic techniques and biochemical procedures as they apply to determination of the mode of action of drugs. Desires teaching position with research opportunities. Will accept administrative duties. Publications, references. Address: A-149.

• **ANATOMIST:** Man, 27, married. Two children. Candidate for Ph.D. Research assistant to prominent histologist for two years on USPHS grant. One year graduate teaching assistantship in gross anatomy. Publications in gross and microscopic. Primary teaching interest in gross. Member AAAS and Sigma Xi. References. Address: A-150.

• **MICROBIOLOGIST:** Medical, Ph.D. 35. Considerable practical experience in all levels of medical teaching, diagnostic bacteriology, research in antibiotics, tuberculosis and administration. Desire academic or comparable stimulating position with future, in progressive institution. Resume on request. Address: A-151.

• **NEUROLOGIST AND PSYCHIATRIST:** M.D., Ph.D., 41. Fully qualified in both fields including EEG, long teaching experience, numerous senior hospital appointments. Associate professor for last five years, teaching clinical neurology, neurophysiology (two years), clinical psychiatry, psychotherapy, dynamic and abnormal psychology, psychophysiology. Member many societies U. S. and Great Britain. Desire to concentrate on teaching and clinical work in full time senior capacity. May organize or take full time charge of single or joint department in both specialties in U. S. or Canadian medical school. Address: A-152.

• **SURGEON:** Board qualified July 1955. University trained. Teaching experience in anatomy, pathology and surgery. Desire full time academic appointment for teaching and

research as well as clinical work. Address: A-153.

• **HISTOCHEMIST:** Man, Ph.D. Eight years experience research in histochemistry, histology, cytology and microscopic techniques in well known university and medical school. High scholastic standard, Phi Sigma, Sigma Xi, publications. Desire teaching, research and/or laboratory supervision position in medical school, hospital or liberal arts college, available summer 1955. Address: A-154.

• **BIOCHEMIST:** 44, Ph.D. Desire two or three year appointment to project looking into problems of extrapulmonary ventilation or administration of volatile and gaseous anaesthetics. Some teaching preferred. Address: A-155.

• **DERMATOLOGIST:** Six years intensive and extensive practice (diagnosis and therapeutics) of dermatology and internal medicine. Seeks full time academic appointment in teaching and research in dermatology and diagnostic service and teaching dermal pathology or a combination of these with part time private practice of dermatology and dermal pathology. Diplomate; noteworthy publications; late thirties. Woodward Medical Bureau, 185 N. Wabash Ave., Chicago, Ill.

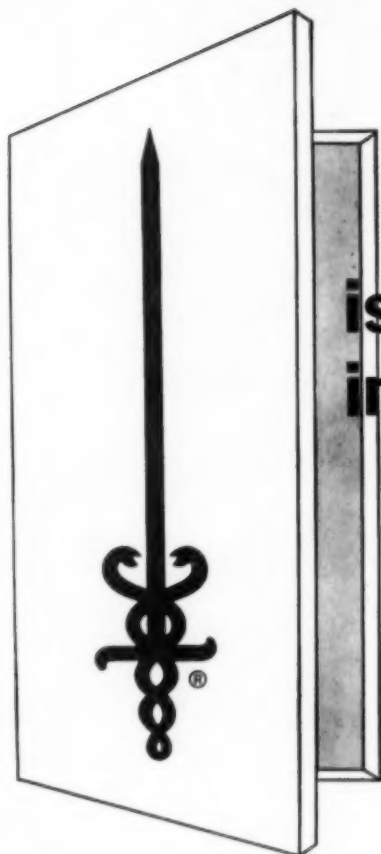
• **THORACIC SURGEON:** 37, university-trained and qualified in general and thoracic surgery. Prefer limitation to thoracic and cardiovascular surgery. Experience in cardio-pulmonary physiology. Desire teaching position. Presently on surgical staff of eastern university. Eligible for boards in general and thoracic surgery. Completed Part I Boards in general surgery. Available after August 1. Address: A-156.

• **INTERNIST-HEMATOLOGIST:** M.D. Presently full-time assistant professor of medicine at large midwestern university hospital. Qualified for American Board of Internal Medicine. Member of Alpha Omega Alpha, American Federation for Clinical Research, American Association for Advancement of Science. Experienced clinician, teacher and investigator. Director of radioisotope laboratory. Numerous scientific publications. Interested in changing location, particularly West Coast, in academic position or private practice with teaching and research opportunities. Address: A-157.

• **CHEMIST:** Ph.D., minor in biochemistry, male, 10 years of research in medicinal chemistry, large pharmaceutical house. Publications, patents. Desires position in chemical-biochemical research in medical field. Particularly interested in position which would broaden experience by contact with other medical sciences. With or without teaching. Address: A-158.

• **PHYSIOLOGIST:** Ph.D., male, 30, family. Desires research and/or academic position in eastern part of U.S. Three years experience as research biologist with large eastern pharmaceutical company. Also teaching experience. Address: A-159.

• **MICROBIOLOGIST:** Medical, male, Ph.D., 37, married. Experience includes public health laboratory, industry (antibiotic research), and teaching all phases of medical microbiology. Present position associate professor microbiology in medical college. Wide research background in antibiotics, immunology, tuberculosis, bacterial disassociation. Have some training in use of isotopes. Desires teaching appointment with research opportunities in a medical school located south. Address: A-160.



is there a doctor in the house?

There certainly is in our house.

Where there is activity against cancer, there is the physician. It is no secret to any of you that the doctor contributes long hours to the needy cancer patient in clinics, in hospitals, in homes. It is your office of which we boast when we say "every doctor's office a cancer detection center."

Less well known is the fact that hundreds of your colleagues, as directors of the American Cancer Society nationally, in Divisions, and with Units, bring the best medical thought to our attack on cancer by education, by research, and by service to patients. The entire professional education program is planned for doctors by doctors.

The occasion for this brief salute is April, the Cancer Control Month. This year, 1955, marks the tenth anniversary of the reorganization of the American Cancer Society and the launching of the post-war attack on cancer. Much has been achieved—far more remains to be done.

We are grateful for your help in the past—and we rely on your continued support. We count heavily on the doctor in our house.

American Cancer Society

A Lippincott Selected Professional Book

Medical Treatment of Mental Disease

by **DANIEL J. McCARTHY, M.D., LL.D.**

*Consulting Neurologist, Philadelphia General Hospital and Norris-
town State Hospital; Formerly Professor of Medical Jurisprudence,
University of Pennsylvania*

and **KENNETH M. CORRIN, M.D.**

*Neuropsychiatrist, Wilmington General Hospital and St. Francis
Hospital, Wilmington, Delaware; Instructor in Psychiatry, Jeffer-
son Medical College, Philadelphia*

Collaborators:

**TEMPLE FAY, M.D., S. B. HADDEN, M.D., R. L. LANGDON, M.D.,
A. W. MALLIN, M.D., J. H. NODINE, M.D., W. W. WILSON, M.D.,
N. W. WINKELMAN, M.D., R. M. WINLOCK, M.D.**

**For further
information
call your
regular
medical
bookstore
or write
Medical
Textbook
Division**

NEW, FIRST EDITION

PUBLISHED 1955

BASING its recommended therapy upon the sound principles of physiology and pathology, this book is intended as a reference and guide in the psychosomatic treatment of patients showing symptoms of nervous and mental disorders.

From Part I, covering the physical basis of psychiatry, causes and occurrence of mental disorders, and examination of the patient, through Chapters covering: mental disorders of unknown etiology, disorders not psychotic in nature, basic treatment methods, to Part V, covering medicolegal aspects, military psychiatry, child guidance and the physician, and electroencephalography, this book will be found informative and useful to those seeking guidance in corrective psychosomatic treatment of patients with symptoms of mental disorders.

653 Pages

30 Figures

\$12.00



J. B. LIPPINCOTT COMPANY

EAST WASHINGTON SQUARE, PHILADELPHIA 5, PA.